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ABSTRACT

This membership meeting of the Association of Research Libraries (ARL) opened with an overview of the challenges facing research libraries and the relationships between the three U.S. national libraries and the members of ARL by Sidney Verba of Harvard University. The directors of the national libraries then spoke on their current programs and plans for the next 10 years--James Billington for the Library of Congress, Donald Lindberg for the National Library of Medicine, and Joseph H. Howard for the National Agricultural Library. The program focused on a number of issues, including: new roles of services envisioned for the national libraries; enhancing access by the U.S. research community to foreign information products and services; dissemination of U.S. government information; how technology can enhance access and resource sharing; financing library programs, including fees/user charges to recover costs and supplement appropriations; licensing as a mechanism to control secondary uses of information products or services developed by these libraries; the evolving National Research and Education Network; and preservation strategies. Following each presentation, a panel of ARL directors posed questions leading to general discussion of the ideas and concerns raised. After the final program session, the National Library of Medicine and the National Institutes of Health hosted a series of information technology demonstrations designed to illustrate the types of applications that result from collaboration among scientists and librarians, as well as to encourage discussion on the potential for similar partnerships with other members of the academic community. A summary of the ARL Business Meeting is also included in this volume. (BBM)

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October 18–20, 1989
Bethesda, Maryland

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Minutes of the 115th Meeting

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National Libraries' Leadership Roles and Responsibilities

Minutes of the 115th Meeting

October 18–20, 1989
Bethesda, Maryland

1990
Association of Research Libraries
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FOREWORD

National Libraries' Leadership Roles and Responsibilities was the theme of the 115th Membership Meeting of the Association of Research Libraries, which took place October 18-20, 1989, at the Hyatt Regency Bethesda in Bethesda, Maryland. The next decade holds a number of serious challenges for the U.S. national libraries. The strategic choices made for these institutions will have a significant impact on North American research libraries. Three national libraries—James Billington of the Library of Congress, Joseph Howard of the National Agricultural Library, and Donald Lindberg of the National Library of Medicine—were invited to address their ARL colleagues regarding their current programs and plans for the next ten years.

Sidney Verba, Director of Libraries at Harvard University, opened the program with an overview of the challenges facing research libraries, and the relationships between the U.S. national libraries and the members of ARL. The program focused on a number of issues, including: new roles or services envisioned for the national libraries; enhancing access by the U.S. research community to foreign information products and services; dissemination of U.S. government information; how technology can enhance access and resource sharing; financing library programs, including fees/user charges to recover costs and supplement appropriations; licensing as a mechanism to control secondary uses of information products or services developed by these libraries; the evolving National Research and Education Network; and preservation strategies. Following each presentation, a panel of ARL directors posed questions leading to general discussion of the ideas and concerns raised.

Technology is an important component of the evolving roles of the U.S. national libraries. Following the final program session, the National Library of Medicine and the National Institutes of Health hosted a series of information technology demonstrations designed to illustrate the types of applications that results from collaboration among scientists and librarians, as well as to encourage discussion on the potential for similar partnerships with other members of the academic community.

A summary of the ARL Business Meeting, which was held on Thursday afternoon, October 19, is also included in this volume.

ASSOCIATION OF RESEARCH LIBRARIES

115th Membership Meeting

NATIONAL LIBRARIES' LEADERSHIP ROLES AND RESPONSIBILITIES

Charles E. Miller, *Presiding*

Martin Runkle, *Program Coordinator*

Bethesda, Maryland
October 18-20, 1989

INTRODUCTION

Martin Runkle

Director of Libraries
University of Chicago

The program session of this Membership Meeting is focused on the national libraries of the United States, particularly upon their leadership roles and responsibilities in relation to scholarship and research. We will have an opportunity to explore such issues with regard to Canadian national libraries at our meeting in Montreal in the Spring of 1991.

We have with us the chief officers of the Library of Congress, the National Library of Medicine, and the National Agricultural Library. The format of the sessions for each library is the same. The chief officer of the library will make introductory comments, a panel will give reactions and ask questions of the speaker, and then all of you, members and guests, will be invited to react or ask questions from the floor. We expect that these sessions will be mutually informative.

After the close of the program tomorrow, there will be a number of information technology demonstrations hosted by the National Library of Medicine and the National Institutes of Health. In most cases, the technology demonstrated has wide application beyond health and medicine and serves to demonstrate the kinds of opportunities in which we might expect leadership from national libraries.

The national libraries are in a peculiar situation in relation to ARL. While they are full member libraries, each with its own primary constituency and facing the kind of operational issues that we all face, they also serve all of the other ARL members in a way that the non-national libraries do not. To open our program, Sidney Verba, Director of the Harvard University Library, will set the stage with some thoughts about the roles and expectations of the U.S. national libraries.

NATIONAL LIBRARIES' LEADERSHIP ROLES AND RESPONSIBILITIES: SOME INITIAL QUESTIONS

Sidney Verba

Director of Libraries
Harvard University

My title today is "The National Libraries' Leadership Roles and Responsibilities: Some Initial Questions." It is true that the national libraries have both a leadership role and responsibilities. But the title suggests that it is my job to tell them how to lead or what their responsibilities are and, further, that the focus should be on them. The focus, however, should be on us. By us, I mean the members of the Association of Research Libraries, the major research libraries. But in the term "us," I also include "them": the Library of Congress, the National Library of Medicine, and the National Agricultural Library.

We–us and them–are the research library system of the nation. Leadership needs to come from them, but also from us. Responsibilities fall on them; they fall on us, too. As a system, it has achieved greatness and can achieve more. As a system, it is also sorely troubled. I want to talk about the possible greatness and the trouble. I do not want to focus on the recent tempest, the conflict over licensing. Rather, I want to talk about the general framework within which this trouble arose. In fact, let us first step back and look more generally at the broader enterprise in which we are all engaged: the scholarly system by which knowledge is created, transmitted, and preserved; a system of which the research libraries are an integral part.

This is a time of troubles in the United States. We have troubles with the environment. We have a drug problem and problems with our public schools. There is a great crisis in American productivity: once leaders of the world, we are now behind. Our manufacturing is no longer in the forefront. We have a huge trade deficit with Japan, with other nations. The once mighty dollar is weak.

But are we behind in everything? No. We are the world leader in three things. There are three areas in which we are the innovator, the exporter, the leader. Think for a moment what they are.

The first one is fast food. From Coca-Cola to McDonald's, there is no country that matches the United States. The second one is popular culture. From Hollywood to rock-and-roll to blue jeans, we are the tops. When the European Community worries about the opening of boundaries across all of Europe, what commodity are they likely to put up protectionist barriers against? American television shows. The last area in which we are the world leader is, of course, higher education and scholarship. The top universities are here, the best system of higher education and scholarship in the world is here. I am not sure how proud we should be of Big Macs or *Lethal Weapon, Part Two* or *Friday the Thirteenth, Part Eighty-five*, but we are proud of our major universities and research centers.

For every dollar we earn from what we sell to Japan, they earn $1.72 from what they sell to us–a vast imbalance against us. But the balance of trade is the opposite when it comes to student exchange. For every student we send to study in Japan, they send sixteen to us. A similar imbalance exists with other nations. This is not simply a tendency to come to the United States to learn economically useful things about technology, nor is it simply a desire to come for the prestige of having studied abroad.

Our system of scholarship in the natural and social sciences and in the humanities, located in universities, private research centers, and government research centers, is the best in the world. If one were to list the great centers in the world for research in my own field of political science, the list would probably include Ann Arbor, Berkeley, Chicago, Cambridge, Mass., and the Research Triangle. Indeed, all of the top ten places would be American.

The same can be said for the world system of research libraries. The best are American. Indeed, it is a corollary of the fact of our superiority in scholarship, since we would not be superior if it were not for the quality of our libraries. One can find many books on the literature or history of other nations by the citizens of those nations—books on French culture by French citizens, on Italy by Italians—that contain in the preface an acknowledgement to the librarians at the University of California at Berkeley, the University of Illinois, or Yale. The reason is the collections are often better, and they always are more accessible and usable.

Why is this the case? There is no single answer about such a complex phenomenon, but let me suggest several answers. These answers are rooted in some fundamental features of American society and politics, features that make us leaders in some fields, laggards in others.

The first is that we are, by constitution and by culture, a pluralistic, decentralized, multi-headed nation. The Constitution creates such a government: separating powers in Washington, dividing powers between the States and the national government. We have, in the jargon currently used by students of American politics, a weak state. There is no single center of government authority, no dominant bureaucracy. Powers and functions are shared among many branches, levels, and institutions within the government.

There is also a lot of sharing between the public and private sectors, as well as between them and that curious in-between, largely American-invented, not-for-profit private sector. More than most nations, we leave a lot more to the private sector. It isn't only that we have a free enterprise system for most economic activities. In addition, the provision of many social services, which, in other nations, would be governmental responsibilities, are provided in the American context by private, often not-for-profit organizations: health care by private hospitals, education by private universities, and culture by orchestras and museums.

What does this general discourse on American society and culture have to do with our current situation in research libraries? I believe it has everything to do with it.

It might be illuminating to compare the United States with a centralized nation that has a strong tradition of state provision of centralized services. Consider France. This year the French government decided to build a new Bibliothèque de France to replace the overcrowded Bibliothèque National. The project illustrates the difference between a weak decentralized state and a strong centralized one.

The new library will be a monumental building located on the Seine, at the site of the railroad yards of the Gare d'Austerlitz, about three-quarters of a mile east of Notre Dame. It is a magnificent location and will be more magnificent when developed. A truly *Grand Projet*. Perhaps a billion dollars will go into the building of this library.

The site is on the Seine, a short walk from the heart of Paris. If we had such a site in the United States—next to the cultural heart of our greatest city with a marvelous river view—we could do only one thing with it. We would sell it to Donald Trump. That is exactly what we did in Manhattan. The thought of such a location and so much money going into a vast public, cultural enterprise—a public library at that—is unthinkable. That is the great strength of the French system: massive centralization and the potential of massive investment.

The French have a true national library—the old Bibliothèque National, the new Bibliothèque de France. But at what cost? A billion dollars will go into the library. I frankly do not think they will get anything like a billion dollars' worth of library. They will create a magnificent monument to Monsieur Mitterand, a gorgeous building, but will it meet the needs of the tens of thousands of students in Parisian universities with no libraries or reading rooms? Or the needs of students or scholars in other parts of France? It is unlikely.

The Bibliothèque National is a magnificent collection, a centrally, tightly controlled collection. But try to use it. A colleague who specializes in France once suggested to me, only slightly tongue-in-cheek, that the reason why French scholarship in the humanities and social sciences is often so complexly abstract and detached from reality is not the Cartesian rationalist tradition, but the difficulty of getting books at the Bibliothèque National on history or social reality. One has no choice but to speculate abstractly.

Centralization has it virtues. One can mobilize resources for a big project such as the Bibliothèque de France, but the cost may be that the resources are drained to the center. Just as Paris has traditionally drained intellectual life from the rest of France, so may a centralized library system impoverish all but the central facility.

As I say, our system is very different. There is no single center. The Library of Congress is the major national library, and we recognize, welcome, and respect it as such. It is not, however, *the* national library in the way in which the Bibliothèque National is, just as Washington is not *the* national city in the way Paris is.

The strength of the research libraries in the United States is found in the *system*. It is no accident that this meeting of the major research libraries in the United States has in it representatives of the great national libraries, state university libraries, city libraries, and private university libraries. The American system of scholarship is not a single institution in a single place. Things do not work that way in our pluralist system. In other countries, one finds *the* National University or *the* Academy of Sciences that coordinates all research. We have no national university, no single center which stands out from all the others in terms of research. The production of new knowledge goes on in all ninety-or-so universities represented in the Association of Research Libraries, and many other universities as well. It goes on at or through the Library of Congress, the National Institutes of Health, the Brookings Institution, and many other places.

We may bemoan the complexity of the system, the difficulty of coordinating all of us, the multiplicity of organizations and committees and councils, the conflict over standards, the absence of clear leadership, the fact that we rarely talk with one voice, the cacophony of a pluralist system. But it is the pluralism, the absence of tight control, the variety, the competition among institutions that make the system innovative, open, and ultimately effective.

Political scientists have studied how policy is made in Washington in a variety of important social areas. They note that, in the old days, we would look for *the place* where policy was made; for some organization, some single leader, some institution that made policy and carried it out. That kind of an institution or leader is hard to find now. Think about some of the major policy issues that we are faced with in this country. Where is policy made on issues like the environment, abortion, income redistribution, or welfare? Where is our policy on information and libraries made? Policy is not made by any single institution or any single body of leaders. It is made in the context of a network, a loose group of institutions and people that work together in some not clearly structured way. There is no policymaking center. The prime actors in any of these fields are found in the Executive Office of the President, in federal departments and agencies, in Congress or on congressional staffs, in universities and private research centers, and in the media. They move from one sphere to another. Policy emerges out of a complex integration of a large number of actors.

This is especially so because policymaking has shifted, as the political scientist, Hugh Heclo, put it, from figuring out how to *do* the right thing to *knowing* what it is that is right to do. In the old days, we thought we knew what the appropriate policy was. The job of an executive was to figure out how to mobilize resources to get the job done. Today, the problem of policymaking in any of these complex fields is not knowing how to carry out the right policy–it is knowing what is right. Since no one can know exactly what is right in any complex field like energy, the environment, information, or libraries, the job of making policy becomes one of consultation. It becomes a job in which one talks to a wide range of people in order to come to some sense of what ought to be done.

The library system in the United States is that kind of a network. It is a loosely defined system, somewhat formal but informal as well. It has many members. It has the great national libraries; it has the ARL libraries, plus others as well. It includes the networks; the Center for Research Libraries; the various associations representing libraries, such as ARL; special purpose organizations, such as the Council on Library Resources, the Commission on Preservation and Access, and on and on. It also includes various parts of the government, the Department of Education, state agencies, and Congressman Sidney Yates (D-IL) and his staff. Such a network has strengths and weaknesses. The strengths are diversity and innovation. The weakness, of course, is the opposite side of the coin–sometimes disorganization, sometimes chaos.

What holds such a system together? In part, it is voluntary cooperation, and it is also openness of boundaries. A diverse system can be totally fragmented, made up of closed and weak units that do not touch each other, do not cooperate. That whole is less than the sum of its parts. By openness and cooperation, there can be a total that is greater than the sum.

The library network is enhanced by a flow of people. The fact that people move from university to university, from private institutions to public service, or from operating libraries to library associations enriches and keeps things lively. It is a better integrated system than one–as in many societies–where people stay at one institution for their entire careers. It is very good for our system that every once in a while a Research Libraries Group librarian moves to an OCLC library and vice versa, that people move out of the Library of Congress into a private university, from a university library back to LC.

Leadership is needed. But where does it come from in such a crazy-quilt system? It comes from many places. It certainly comes from the Library of Congress, as it should, but it also comes from the Council on Library Resources, from RLG and OCLC, from specialized groups like the Commission on Preservation and Access, from the National Endowment for the Humanities, from ARL, and other institutions.

The point is that there is no single center of innovation in libraries, no single fount of wisdom. It is a network of a variety of institutions interconnected with one another. This is the system we want to preserve. It is worth preserving and worth strengthening. It is both complex and delicate. It cannot be coordinated by fiat. The various parts need each other if the system is to continue to perform as it has in the past and meet the challenges of the future.

This brings me back to the relationship between the national libraries and the research libraries in ARL. I will focus somewhat more on the Library of Congress because I am more familiar with it. What clearly is needed is cooperation and mutuality. The Library of Congress and the ARL libraries need each other. We at ARL have a responsibility to contribute our share. We cannot be passive partners. The Library of Congress also has responsibility as the first among many. It has a leadership responsibility, but it must be exercised in the context of a cooperative. Responsible leadership in the United States is consultative leadership. The Library of Congress has sometimes not been a full partner in that cooperative community, at least not as full a partner as it might have been. Its leadership at times has been too hierarchical. It has held itself aloof from the community. We want the Library of Congress to work with us—not for us, but with us. I come from an institution that, in some ways, and, at some times, has also not been as full a participant in the library community as it should have been. Like the Library of Congress, Harvard has, at times, invoked a uniqueness that seems to justify holding back from the rest of the library community. That is a mistake.

The Library of Congress is, of course, unique. It is "The Library," just as any of us who come from New York know that when anyone mentions "The City" it can only be one place. It is good that *we* in ARL think of the Library of Congress as "The Library;" maybe it is not so good that they, at LC, think of it in the same terms.

In my time as a librarian, I have been impressed by the difficulty of cooperation among libraries, among ARL members, between ARL and the Library of Congress, among the networks. One could easily despair. But I have also been impressed, indeed more so, by the strides that have been made. We have the beginnings of a national preservation program, thanks to many individuals and institutions: Pat Battin at the Commission on Preservation and Access, Jim Haas at the Council on Library Resources, the Library of Congress for its pioneering and continuing work, the National Endowment for the Humanities, Congressman Yates, and others.

We have many programs working with the Library of Congress that are crucial to us and crucial to them. CONSER and the Name Authority Cooperative (NACO) are two. We have an emerging cataloging program which has great potential for the future; a program, it is important to say, that must be a cooperative program, not a coordinated program. Programs of this sort only will go forward if they are based on mutual respect and mutual cooperation.

If there has been a controversy about the licensing of the MARC records, it has come less from substance than from process. I have heard many comments about the program from many people in the library community. There are many different viewpoints, some sympathetic and others hostile to LC's position. But I have heard no one who did not bemoan the lack of information and the lack of consultation in advance. There was substantial consultation within the Library of Congress. But we were absent, and that, I believe, was the beginning of a difficult and inappropriate program. It is good that it has now been slowed down for rethinking. We are all grateful for this.

Let me make it clear that the lack of consultation is not attributable solely to the Library of Congress. It is a problem with us as well. We are a very hard bunch to consult with or cooperate with. We have many voices; we do not listen well at times; we jump to conclusions; we get our backs up too easily. I would not like the job of building consensus within this community. It is not an easy thing to do, and one can understand why making policy in the context of such a complex, multi-voiced group is very difficult.

But that is the American way! We need consultation. That is what makes policy legitimate.

There is no single model for a cooperative national library system in the United States. It may depend on function. And it may always be somewhat disorganized. Look at the cataloging system. Who, starting from scratch with a mandate to create a national electronic catalog, would have invented the current system we have with the Library of Congress, two nationwide utilities, the regional networks, local systems, and everything else? Rube Goldberg might have had the imagination, but few others. It is a system that was not invented. It grew out of separate institutional histories. It is as messy as can be.

And maybe that is not so bad. To draw again on the French-U.S. distinction, Edmund Burke, in his critique of the French Revolution, wrote a great tribute to institutions that grow in contrast to those that are deliberately created at a single moment. The former institutions are messy, but they are rooted. They reflect real needs. The national cataloging system just grew. It is messy and confusing; nevertheless it works. It needs improvement, not further strain.

Let me talk for a minute about another issue: financing. Ultimately everything in our life comes down to the budget. The tragedy of human existence is the budget constraint. In a recent report, I tried to show how deep were the fundamental problems of our library by illustrating how our condition as a research library reflects the most basic tragedies of human existence as understood in the several scholarly disciplines whose works we collect. From theology, we learn that the tragic human condition derives from original sin, which we know is the seeking of more knowledge than we ought have. That certainly is a library problem. From economics, we know that the tragedy of the human condition derives from the combination of limited resources and unlimited wants. That also is a library issue. And from my own field of political science, we learn that the tragedy of the human condition derives from the difficulty of arriving at just social policy in a world of conflicting needs, values, and preferences. We see that every day in our lives.

Such is the depth of our tragic condition! Too much knowledge, too few resources, no consensus. No wonder we squabble. Who wouldn't?

Budgets are the consequence of our loss of Eden. And these days, they are constantly being cut. We have to demonstrate to those who fund us that the benefits we produce exceed the costs. One reaction to this is cost recovery; fee for service and the provision for services on a market basis. We are in an era in which public institutions are being converted into semi-private ones, either by farming out what used to be public services to the private sector or making the public sector work like the private sector by selling services. The British Library is doing a lot of that. Are we to have the "Thatcherization" of the U.S. as well?

Markets, where people buy and sell commodities, are remarkable social institutions. They are efficient allocators of goods because they deliver such goods to those willing to pay for them and, therefore, allow consumers to decide what is of value. They are not coercive. No one has to buy or sell a particular service. They stimulate quality of service by competition.

All over the world there is a movement toward markets, toward a fee for service. Certainly one sees this in the Library of Congress; one sees it in the services we provide in our local libraries. We all try to recover costs wherever we can. Much of this is introduced as a means of getting around budget constraints. We want to provide a service, but we cannot get it funded, so we sell it. We are happy. Our funders—the deans, the provosts, the congressional committees—are happy. Maybe some patrons are not happy, but they pay a few dollars, and all works well.

The market is a very important and effective institution, but markets have a price. Markets are efficient allocators, but they have flaws as well. For one thing, they are ineffective in supplying collective public goods, goods that benefit everyone. We are probably still the most affluent nation in the world in terms of private consumption; look at the buying frenzy at any shopping mall. At the same time, we have a starved public sector. Our public schools are underfunded; our parks untended; our public services often pathetic. It is an old story in America: private affluence and public penury.

And markets are highly unequal. They allocate services to some people—those who can pay the price—and not to others. All societies keep some things out of the market, some things that are not bought and sold. Some things are so bad—drugs and harmful commodities—that we do not allow them to be sold. Conversely, some things are so basic that they are guaranteed to people as a right even if they cannot afford them.

In the United States, there are fewer commodities that are outside of the market than there are in most industrialized societies. We are the only major industrial nation without a comprehensive health care program. We have created the most technically advanced medical system in the world. The best equipment and techniques are available for use. Yet, the level of basic medical care varies directly and sharply with one's income.

We do have some basic goods that are not bought and sold—an obvious one is the right to vote. It does not have to be bought. It inheres in one's citizenship. Nor, in fact, can it be sold. Another good that has been key in America and kept, at least in part, out of the market, is enlightenment. We believe in a free and open public school system, in public universities, in public libraries. This represents a commitment to an educated and enlightened citizenry where the enlightenment does not depend on one's ability to buy it. And we ought to maintain the tradition that enlightenment is not a commodity.

All of this leads to a plea to the national libraries and a plea to ourselves as well: Do not let the budget constraints go unchallenged! Do not go quietly into the dark and unequal night of fee for service! Keep information open to all, whether or not they can pay. In making this plea, I realize that one cannot ignore the fact that privatization and fee for service may be pushed upon us by budgets that are constrained. We may have to yield, but we must fight it. How tragic would it be if the private libraries and the great state libraries in the United States were bombarding Congress with complaints about the Library of Congress when we should be pleading for its continued and increased support. We must not let that happen. We must not divide ourselves so that we cannot find the resources that we need.

Just as we must fight for resources, we must fight to keep our information and our records about information open. The Library of Congress has been a leader in this fight to keep records open, and to avoid restrictions on them. It would be tragic if the Library of Congress or if any other institution became protectionist. If LC began to restrict its records, it would lead to a protectionist war in which all of us would lose.

There are many questions that can be raised about the relationship between the ARL libraries and the Library of Congress. The basic one I am trying to raise is how we can work together to make the research library system better. What can the national libraries do? What can the ARL libraries do? Can we work more effectively with each other to maintain our collections in the face of rising costs and the rising volume of material? What is the relative role of the private libraries and the national libraries?

Do we need new mechanisms of cooperation? Maybe, but maybe not. I do not think I would welcome another set of advisors to the Library of Congress, another committee to coordinate the coordinating committees. Maybe what we need is a spirit of cooperation. ARL libraries need the Library of Congress; they need RLG; they need OCLC. The networks need ARL, and the Library of Congress needs all the rest of us. Let us remember that. We will always squabble, that is the American way, but we still must all hang together.

DISCUSSION

A MEMBER: You mentioned that what we do not need are letters from us to Congress bashing the Library of Congress, that they are important to us, and I agree. What I sense, though, is that Congress is saying to the national libraries as well as to other agencies, "But we must move away from public support of these public institutions, and you have to go out there and raise private dollars and become entrepreneurial to support yourself." Could you comment further on that?

MR. VERBA: If that is the nature of the congressional problem with the Library of Congress, it is a great tragedy. It is a tragedy for the Library of Congress, and for all of us. It is a tragedy for American society in terms of the way in which we are beginning to think about our priorities and the nature of what we are as a community.

I believe our stance should be one of great sympathetic support for the Library of Congress as they oppose that particular tendency on the part of Congress. I hope they will oppose that tendency, rather than considering it the best way to cooperate with Congress.

It is often very difficult for a public agency like the Library of Congress to do so since they depend very heavily on their supporters. In the American context, it is very often associated institutions that can be more effective in preserving the budget for governmental agencies than can the governmental agency itself. We, as a constituency, through our connections with Congress, can perhaps help the Library of Congress, maybe even more than it wants to be helped to avoid these kinds of pressures.

I believe we can act as independent forces in that direction. That is the kind of bombardment that one would like to see, bombardment in favor of budget support for the Library of Congress and opposed to converting a large number of programs into fee-for-service. This is a problem not only for the Library of Congress, but for American government in general.

A GUEST: This is not a question but just a comment to encourage you to stand firm against this trend of fee-for-service. We do not like what is happening in the United Kingdom. The irony is that Margaret Thatcher thinks that she is following the American way. Internationally, we have to stand firm against this kind of trend.

NATIONAL LIBRARIES' LEADERSHIP ROLES AND RESPONSIBILITIES

THE LIBRARY OF CONGRESS

INTRODUCTION

Jay K. Lucker

Director of Libraries
Massachusetts Institute of Technology

I am pleased to have been asked to moderate this session and to introduce the Librarian of Congress. I am also pleased that Dr. Billington was able to be here earlier to hear Sid Verba's excellent introduction to these sessions.

Obviously, the Library of Congress is important to all of us as a national repository, as a center for research and development, as a locus for standardization, as a coordinator of programs, as a provider of services and information, and as an intellectual core of librarianship in the United States. So it is particularly important that the chief operating officer of the Library of Congress be here to speak to us today.

I am also pleased to introduce Dr. Billington because he and I are old colleagues from Princeton days. We have know each other for too long a time—I do not want to count the years! Many of you know that Jim Billington is a Princeton graduate and has Ph.D. from Oxford University, where he was a Rhodes Scholar. He served in the Army at the end of the Korean War and then became an instructor and an associate professor at the small college in Cambridge, Mass., which is about a mile and a half from MIT.

During that time at Harvard, he also was a fellow at the Russian Research Center and wrote his first major work, *Mikhailovsky and Russian Populism*. He was a Fulbright Scholar and a Fulbright Professor. In 1962 he went to Princeton University, where he stayed for 12 years. During that time, he wrote his second book, *The Icon and the Axe*, an interpretive history of Russian culture, which was very well received and has become a classic in its field.

In 1973, he moved to Washington to become the Director of the Woodrow Wilson International Center for Scholars, which was organized to promote international scholarship in the humanities and social sciences. Among his achievements was the establishment of the Kennan Institute for Advanced Russian Studies. While Jim was at Woodrow Wilson Center, he established the *Wilson Quarterly*, a periodical which has today over a hundred thousand paid subscribers, a remarkable achievement for a journal coming out of that kind of institution. In 1980 he wrote his third book, *Fire in the Minds: Origins of the Revolutionary Faith*, which is a study of revolutionaries from the French to the Russian Revolutions.

On September 14, 1987, James Hadley Billington was sworn in as the thirteenth Librarian of Congress. I am pleased to introduce him today.

THE LIBRARY OF CONGRESS

James H. Billington

Librarian of Congress

I appreciate the generous introduction and the chance to speak to other research libraries about the Library of Congress. For more than two years since I have been Librarian of Congress, I have consulted with a large number and wide variety of librarians, and have visited dozens of libraries throughout America. But I have been a library junkie all my life, from my earliest childhood amidst the library compiled largely of used books by a father, who never had a higher education but imparted early to me a love of reading. And much of my life has been spent working in research libraries–in Philadelphia as a youth, at Princeton and the New York Public Library as a student, in many of the great research libraries in this country and Europe as a working scholar for a quarter century, and as a scholar-administrator at the Woodrow Wilson Center for 14 years, bringing more than 10,000 scholars from all over the world to work in the Library of Congress and to discover the other great research libraries of this country. The acknowledgements in my books reveal the extent to which I am the kind of scholar who is intensely library-dependent. I view the sustaining and extending of opportunities for inquiry and research as a personal as well as institutional goals. Let me explain to you some of the ways that we are trying to provide the coherent strategy and strong management that we hope will make the Library of Congress both a good continuing witness to this profession in Washington, and a dependable, long-term source of continuing and expanding service to those of you who practice this profession in sister institutions across the country.

We are entering a decade of development leading up to the Bicentennial of the Library of Congress in the year 2000. We are seeking (1) to sustain, enhance, and activate this near universal collection here in the capital during the rest of this century as we begin (2) to work through the Congress and with other libraries and other information-based institutions to use new technologies to make the riches of this collection more universally available for the nation in the next century.

I have been asked to speak about the future direction of an immensely complex organization, so it is best to begin with basics: **people, buildings, collections.**

What are the essential assets and challenges for each of these elements?

- **LC is a talented staff of nearly 5,000.** The basic challenge is to release their creative energies.
- **LC is three major buildings at the heart of the U.S. capital.** The challenge is to make them more usable and creative for Congress and scholars as well as a visible statement of the importance of the pursuit of truth in a city of power.
- **LC is a set of massive, often unique, collections.** The challenge is to keep them alive and make them more widely available throughout the country.

This is the formal paper upon which Mr. Billington's remarks at the meeting were based.

To set the ground for new initiatives in these three areas, we began with people. Last year we undertook our year-long Management and Planning review, followed by a transition process to a reorganization which is now essentially complete. The result is a different set of values from those inertially developed in bureaucracies, which in the government tend to be hierarchical and turf-oriented and in academia, highly specialized and divided into isolated, baronial departments. Shared values define societies, cultures, and institutions that endure. Defining and agreeing on the values that our own people live and work with was the first and most important step in working out our future.

Our first and most basic value is **high quality service to those outside**. This is to be accomplished by stressing our other values which are also not inherently characteristic of large public sector bureaucracies: **innovation** and **effectiveness** on the one hand and **fairness**, **human development**, and broad **participation** on the other. These values require a different type of management culture. The reorganization we made is less important than the continuing process of building a new organizational culture that is more team-oriented and involves more cooperation with unions and consultation with staff. For example, we have a current project involving all 200 staff in Information Technology Services to identify issues related to information management at LC and propose recommendations to enhance performance in accordance with our values.

In our review of the Library, we moved from articulating values to defining a mission in four parts, all of them derived from the first value, **Service**. There is service to **the collections**, to **the Congress**, to **the American people and their libraries**, and to **the creative community**. The principal service units in our new organization are designed to serve each of these.

People work better and can measure success when organized to serve a mission. We have identified a great need for training and creative career development of our people. A variety of new jobs are opening up for people inside and out, and we hope to have your suggestions. We have an increased commitment to Affirmative Action, and hope to have more possibilities for short-term work here by both librarians and scholars from other institutions.

We will need more remote storage space soon but are unique in having so much of such a large collection in one place. The Library of Congress is a particularly good place to put things together and not just take them apart as academic analysis often does. The current restoration of our glorious Jefferson Building will provide reading rooms for *all* major cultures of the world, transforming that building into a living, universal museum of the written word—a world record of the diverse **humanistic past**. The Adams Building, by contrast, will be the place for the **scientific present**—using new modes of data and analysis. The Madison Building will be the place for the **multi-media future** with its photographic, film, music, movie, and TV collections.

I want to focus today not on people and buildings but on collections. This is the first and most basic of our service missions. Without collections, we have nothing with which to serve the Congress—our primary constituency. We are the Library of *Congress*. We run the Congressional Research Service, which is the world's largest think-tank and has more than half of our top positions. Without the Congress' vision and support, this collection could not have come into being and could not be sustained. The universal needs of the Congress (and of the government as a whole) make it essential that we maintain the depth and universality of our collections.

Not only our primary mission of service to the Congress but also our strong secondary mission of serving the American people and their libraries depend on our basic ability to acquire, process, preserve, and share our collections. Increasingly, this should mean sharing not just the bibliographic records but some of the content of the collections as well.

In preservation, the Library of Congress continues to provide a leadership that—like so much we do—is often either not understood or not acknowledged. We have done half of the preservation filming, 40% of preservation microfilming in the country, and we have developed the

DEZ process for paper deacidification.

But the fundamental problem making it difficult to sustain the basic work needed for the national bibliographic record is our arrearage, the reduction of which is our top priority in the new Collections Services unit. The basic cause of this increasingly serious problem is the lingering effects of Gramm-Rudman-Hollings budget cuts and a continuing series of pay raise absorptions that have forced us to leave many positions vacant. **The arrearage is a national problem/opportunity** for which we need your creative ideas. This arrearage is

- **extensive** (estimated at more than 38 million items in the general and special collections–out of 88 million in LC collections), and
- **growing** (by an average of 900 thousand to 1 million items per year).

This issue was identified as critical during our review process by a National Advisory Committee, in which five of your directors participated. We now have underway a comprehensive internal study of the arrearage problem in our new Special Projects Service unit. After we highlighted the seriousness of this situation in budget presentation last year, the House Subcommittee on Appropriations has given gratifyingly serious attention to this matter. But it is unrealistic to think, with the budgetary constraints that the Congress is under, that it will be able to provide all the help needed.

There are various ways we could solve this problem–including radical ones such as the wholesale deaccessioning of large parts of our collection, or separating from the Library of Congress the preparation of national bibliographical records. The solutions we are pursuing reflect our determination to sustain the massive high quality service we provide the nation's libraries. First, we want to lessen somewhat our intake by seeking more quality in our collections, drawing on more scholarly expertise to help winnow down the size of our acquisitions. Next, we are working to improve the volume and efficiency of our work by cataloging simplification, whole book cataloging, and other experiments that Henriette Avram is working on. We want to increase our cooperation with other research libraries on the linked systems project and on cooperative cataloging, to which I give high priority.

The dimensions of the problem are so great, however, that these measures promise no more than partial solutions that can be realized only over the long term. The need is, and will remain, to find some other forms of financial support precisely in order to sustain our historic commitment to ensure the continuation of high-quality service to *all* of our users. We have conservatively estimated the savings that the Library of Congress provides to the nation's libraries from the distribution of our cataloging records in machine-readable form to be over $367 million. The nation's libraries clearly have an enormous stake in our ability to sustain these services. We cannot pay for them through annual appropriations alone.

The first and basic source of sustaining support is for LC to meet our legal mandate to recover the cost plus 10 percent for our substantial investment in the distribution of bibliographic services to users and brokers of these products. A second new source of support is the licensing agreement we proposed primarily for the foreign market. The thrust of the license was to provide a mechanism to protect the use of MARC records overseas, where they are covered by copyright. The licensing agreement was designed to assist the Library of Congress in sustaining its quality services to all our users by obtaining an equitable return from those organizations that derive considerable financial gains from the verbatim resale of our data and/or the resale of major portions of particular files of data.

Because of strong concerns expressed by U.S. librarians, however, I have decided to re-evaluate the options available for assuring the continued viability of these services and will delay implementation of a licensing policy until this evaluation has taken place. Meanwhile, this problem is not going to go away, and we will need to have alternative proposals if you do not like ours: real options to evaluate, which will make a substantive difference soon. Henriette will be meeting with many groups in the library community to discuss creatively and collegially what is, after all, a common problem. She is looking forward to describing our constraints and discussing possible solutions.

Most of what I have just said focuses on bibliographic data. But the bibliographic record is a means to an end which is to provide wider access to the collections contents. The Library of Congress is a major research resource for the nation, including your own faculty and students, but it is under-used because it is not known or knowable. We are addressing that issue in several ways:

- **National Reference Service.** Last year we answered 3 million inquiries, in person, by telephone, or by correspondence, almost two-thirds of them to our research and law divisions. We will be working increasingly this year and in the future with other libraries to encourage them to answer those questions for which they have the resources and expertise to handle and to encourage other libraries, in turn, to use us to help out with questions requiring our special knowledge, expertise, and unique collections. This is a way of working together to try to make best use of the limited resources we all have.

- **ROLLUP.** We just began an exciting new pilot program with 14 libraries across the country, for the first time making our information system—LOCIS—available online to remote locations. After a six-month test, we will know more about what the use and demand for this kind of access is. Eight of the participants are ARL Libraries (Boston Public Library, New York State Library, Duke University, Florida State University, University of Kentucky, University of Maryland, University of Michigan, and University of Southern California).

The responsibility we have to the Congress and the government to sustain a universal collection helps other large research libraries as well by allowing others to concentrate on special areas of their own interest and on local needs while preserving and expanding access to our collection of last resort. Unlike other research libraries, we do not charge for interlibrary loan; and we economically gather foreign collections not only for ourself but also for other research libraries. In addition to our six existing overseas offices, we are attempting to open new ones.

We are also actively pursuing new projects to make materials from (or built upon) our collections available inexpensively to other libraries. Our **American Memory Project** will put unique and interesting multi-media materials of American history in usable disk form for other libraries; our newly-acquired **National Translations Center** provides references to over 1 million scientific and technical full-text translations, of which over 450,000 are resident in its collection. With our immense supply of foreign language material and foreign language-speaking employees, we should be able to supplement this service. We are also looking into online full-text services and indices to foreign legal materials as other means of service.

The investigation we are making of **fees-for-services** is conducted with the understanding that any programs so funded will not interfere with the free services we already provide Congress and individual scholars. Additive services of this kind will have to be paid for with new money and will, in turn, have to generate a return to be put back into collections and cataloging. The point of adding enhancements is both to provide new services for the nation and to help increase the base of support for the national collection and the national bibliographical record. We need to explore the needs that exist and the issues involved with a variety of specialized constituencies, particularly in the law and the productive private sector. What kinds of services is it proper to expect the American taxpayer to support fully? Materials for the blind and physically handicapped? The answer here is clearly yes. There seems full agreement in supporting our service that provides 20 million items free each year to that community of Americans. What about possible targeted services for the legal community? Business community? For research and development in science and technology? Don't they need, and shouldn't they pay for, enhanced specialized use of these collections?

As with licensing, so with fee-for-service. Our purpose is precisely to sustain the basic service to the end-user libraries and individual scholars that we have historically provided either free or at a highly subsidized minimal charge. A reasonable means of helping to sustain that service is to ask for a more equitable level of support from those entities which generate substantial revenue globally from Library of Congress products yet currently pay little more than the basic subscription rate paid by an individual library that uses the records only for itself and its readers.

Let me mention in conclusion an altogether new, but very small, service unit in our new organization called Cultural Affairs. Its purpose is to gather together and give clearer focus to our efforts to make more creative use of the Library. For example, unless the special format and foreign language collections are used in more ways by more people, the long-term legitimacy of having them will be undermined. These collections often include unique elements for the research library community as a whole—and they are where our arrearage is greatest. This unit will play a more active role in furthering pubic knowledge and awareness of a library that needs general public understanding and support as well as library community support.

The point of the Cultural Affairs unit is to encourage and celebrate the interaction between people and research materials without which neither libraries nor our type of society can thrive—or even survive. So I return to the basics of people and collections. The Library of Congress of the future will provide a flexible, participatory, team-oriented system, dedicated to outside service. It both recognizes the breadth and depth of knowledge of the staff and seeks to get them off the 19th century assembly lines and into the 21st century information network with all of you. Our staff—and research libraries everywhere—must increasingly see themselves as pivotal players in a continuum of scholarly communication that provides access to the old in order to foster creation of the new.

We have recently opened our major exhibit in honor of the 200th anniversary of the United States Congress, which created this remarkable intellectual institution shortly after moving to the new capital in Washington. The founding fathers sensed early what others are just discovering now: that both knowledge and access to it must be universal in a true democracy.

We have to keep our collection universal to serve the Congress; we will hope to make it more nearly universally accessible to serve the American people more directly in the 21st century. And as we have done with our bibliographical records and are beginning to do electronically with our ROLLUP project and the American Memory Project, we will work in ways that serve and help other libraries directly.

The great fear of us who are custodians of this national treasure is that it could somehow, someday be lost like the great library of Alexandria. Our hope is that it may recreate the creativity that once prevailed in Alexandria: of an Eratosthenes who first measured the earth's circumference; of a Callimachus, our first bibliographer; and of an Erasistratus who discovered the pumping action of the heart.

America may even have the opportunity–if it has the vision and will–to produce a civilization like that of the Greeks–perhaps even better because it would be continental, multi-ethnic, and without slavery. If this is to happen in the information age, we will have to work together with the great urban and university research libraries, realizing that they, too, have a stake in our efforts to bring more of Athens into this particular Rome, the frontiers of truth into this center of power. We, for our part, will have to find new ways to share with you, with America, and the world a richness that cannot be confined just to this city. We here in Washington have a unique opportunity to participate in the unending human effort to winnow information into knowledge, to distill knowledge into wisdom, and to bring it all to bear on the enduring American dream that whatever our problems are today, tomorrow can still be better than yesterday.

PANEL DISCUSSION

Harold Billings, University of Texas
Susan Brynteson, University of Delaware
Arthur Curley, Boston Public Library

MR. BILLINGS: Mr. Billington, you talked about the issues of people, buildings, and collections at LC. I would like to focus on what I would call the information infrastructure, that is the connectivity of the Library of Congress with the research library community.

I would like to pose a question about preservation–not about the preservation of motion pictures and embrittled monographs, or journal literature and optical disks, but rather the preservation of something even more fragile and perhaps more important: the preservation of our research library resource-sharing infrastructure that has been constructed in such very delicate balance–a cooperative balance and cooperative effort–over the past 15 years. Through library cooperative membership efforts in OCLC and the Research Libraries Group's RLIN, through our regional networks, through the collaborative sharing of LC and member cataloging information, through the enrichment of the database that has been assembled there with countless millions of items relating to location information, we have developed the most comprehensive and effective national information-sharing system in history. In my view, this electronic house of cards is very much at risk and may be brought down about our heads at any time, particularly if the lance in overhead on the cooperative infrastructure is too severely dislocated, particularly in this financially troubled time. This would be a disaster of the first order.

My question to you is: What is your personal vision of LC's role in the research library community's information infrastructure? What ideas might you have about preserving and strengthening the national research resource sharing infrastructure?

MR. BILLINGTON: That is a big question. We believe the first and the most important responsibility is to see that the institution of the Library of Congress, which is a public trust, is managed responsibly for the long term, that we do not provide short term palliatives which are only going to increase long term problems. This is fundamental.

The second point is our plans have to be worked out creatively and we are particularly interested in the views and the concerns of libraries. I can only point to the practical things that we have already done. We had considerable discussion with librarians about the American Memory Project. How should we share the collections as well as bibliographic records? It is clear we cannot devote large sums of public money to this. We have to develop the program cooperatively, to get help, as we are doing, from the private sector.

So the first thing I can do is to manage responsibly for the long term and make experimental probes into different aspects of this problem. With American Memory, we are reinforcing local libraries and research libraries because we are sharing a part of the collection, so that part of what has been accumulated for the nation can be shared with local communities for educational purposes and so forth. The alternative strategy would have been to take elements of the collections and try to move them directly into people's homes. We have no such strategy. We want to strengthen this network by going through libraries.

To take another example: we have just entered into an agreement to get access to some programming on library matters with supplementary support for cable television. It will not be solely for the Library of Congress but will be something of wide interest—an hour program per week—to give more visibility to libraries, their accomplishments, their concerns, their problems, and so forth. That cable program will go directly into people's homes but it is not part of the collection. It is projecting the importance of libraries. So there we are serving the same end, which is to try to strengthen and enrich this fragile enterprise by additive elements that do not come at the expense of our basic services.

Then we have to find ways, as I have already indicated, of sustaining basic services for the long term. We have been looking for creative ideas and we will be talking with more of you because we have common problems. We are going to have to make some hard decisions. We do not want to make them until we have tried pilot programs, and tested things. We are going through an elaborate six-year testing process on American Memory to make sure it maximizes these values we are talking about and that we get feedback.

We are taking longer on the question of providing the necessary added funding for sustaining the quality bibliographic record service because of the need to consult more fully, but these problems will have to be dealt with. My purpose is not just to add a few more cards to the house of cards but to strengthen it.

We want to develop a system in some of these cooperative access that we have indicated, but we also owe it to the taxpayer and we owe it to the Congress which supports us to make sure that there is sufficient accountable control over this. I have consulted very widely. I believe our process of internal consultation sometimes takes up so much energy that our people may not have as much time for the external consultation as I know they would like, probably as well as you would like. So now that we are over a lot of that, we should have more time for it. But the objective is surely to build something that rests on a solid management base and that does not either demean or take for granted the public sector contribution.

Our interests are the long-term interests of this civilization as embodied in something created by the man who wrote the Declaration of Independence and founded the Library of Congress and wanted on his tombstone that he had founded a university rather than that he was President of the United States.

MR. BILLINGS: This is a related question on infrastructure because I really am interested. It is wonderful for you to get your house in order and LC is more important to us, I believe, than any of us could ever overstate. It has been and will continue to be enormously important. But I am particularly interested in the connectivity issues, the infrastructure, what LC is going to be doing with the research library community.

In your recent testimony before the Subcommittee on Science, Technology, and Space regarding the National High Performance Computer Technology Act of 1989, you commented on the role of the Library of Congress and other research libraries and what those roles should be in developing a national computer highway. The bill suggests that there be development of an information infrastructure, databases, services, and knowledge banks, available for access over such a national network. In your testimony you mentioned that LC should play a prominent role in the development of such an infrastructure, and you mentioned the prospective cooperation of LC and other research libraries across the country in this activity. What additional mechanisms do you see for LC and our research libraries to work together on that computer highway and on that national resource sharing infrastructure?

MR. BILLINGTON: I do not have an institutional blueprint. There were a lot of people in the hearings after me who were selling goods. I am trying to help define a problem and work cooperatively with the many parties that will have to be involved on how we address it.

What can the Library of Congress do? The main question is not how are we going to work but what can we offer, what can we bring? We should certainly be part of the national network because of the extraordinary nature of our universal collection.

We may be able to perform a role by getting out those things which only we have, just as we are tying to get out our unique material in American history. It is a kind of basic duty to the American people and a vitamin enrichment for local libraries. To get out the scientific and technical information of the world—nearly three-quarters of the books are in foreign languages—we now have the National Translation Center. Should there be something like a National Library of Science and Technology within the Library of Congress, which will dramatize this need? Should we work cooperatively with a group of other libraries to set up a national facility or should we try to set up a national network?

Those are questions that are just beginning to emerge on the horizon. But, again, I believe that the important thing for the Library of Congress to do is to be able to say what it is that we have and to try to be an early opportunity device for the broader library community.

MS. BRYNTESON: I would like also to express my appreciation for your speaking to us this morning and sharing your vision. Together in this room, we, the hundred or so research libraries of North America, represent the national scholarly and research community which you identified as your end users and also your constituency. I believe, conservatively, that we probably each represent at least 1,000 faculty, sometimes many more, and so that would be 100 thousand faculty that we represent just in this room.

I believe that in many ways we are the liaison to the Library of Congress for we serve the same constituency. We in this room share common values, common concerns, a common experience, and a common record of achievement, and I know that many of you have been more responsible than I in the numerous projects to which I refer. I am a great admirer of Mr. Fred Wagmann, who did so much with the National Union Catalog, which was an important research tool. I am proud to have been involved with the CONSER project, without which, I believe, the national and international serial database would not exist for the Library of Congress or for us. It was totally a shared and cooperative project.

I believe that the community represented here has a long history of working cooperatively with the Library of Congress and has made its own contribution to the work of the Library. I recall the testimony of my colleague, Marilyn Sharrow of the University of California at Davis, who supported the budget of the Library of Congress earlier this year with great eloquence. I also testified last year in support of the budget of the Library of Congress because I believe that we in this room are concerned about the economic viability of the Library of Congress and because support for the Library of Congress is good public policy. Support for the national libraries is good public policy. When the National Agricultural Library had an error in its budget, the research library community helped to correct that error. Many of us, also, in our own states, have similar relationships to the smaller libraries in the state at the grass roots level, as the Library of Congress has to the research library community.

I raise this because I believe those libraries and the American taxpayer in the most far-reaching part of the land, in the farthest corners of the nation, *do* wish to support the Library of Congress. Often, however, they do not understand it. Sometimes it is our job to help explain it to these librarians and taxpayers, and to urge them to write the letters that bring support for the Library. But I believe they also want to support and wish to continue to support the idea of unimpeded access to information and the overriding concept that LC is principally funded through the public treasury.

I read with interest the MAP report, which I believe everyone in this room has received and studied. I must say I found the MAP difficult to comprehend because it seemed to have a mix of organizational and programmatic changes that were both global and pragmatic. It was difficult to identify long-term strategies in this very complex document.

I thought that the idea of the role of the national library, the Library of Congress, in relation to the other research collections of the nation, did not permeate the MAP document. A philosophy has evolved within perhaps the last decade that the nation's research collections are vast, magnificently rich but decentralized, and the idea of "near universality" as you stated, is an idea that we aspire to *collectively*. I am wondering if you would see this "near universality" as a basic change in LC approach, both through a different kind of funding support for the Library of Congress, and a changed strategy for financing the national library. This is a change from the longstanding concept that the nation's research collections—and not only the Library of Congress—are collectively the strength of the nation.

MR. BILLINGTON: The question as to whether one should conceive of universality in terms of the totality of the research library community and whether the Library of Congress should aspire to it separately, institutionally, is not fundamentally a choice we have. That was decided when Congress acquired Jefferson's library in 1815. Jefferson himself explained that there was "no subject to which a member of Congress might not have occasion to refer." That is the concept of universality that has been sustained ever since, and I believe it would be inconceivable in our role—particularly in our primary role of service to the Congress, where we are becoming increasingly international, increasingly complex and technological—for us to renounce or to deaccession major parts of the collection in ways that would not make them more immediately useful.

Congress is our one fixed constituency, and many of the techniques and many of the things that have been developed in the Congressional Research Service to satisfy them provide stimulating new ideas that we can share in this developing information network that our previous speaker was talking about, as long as they do not interfere with the fundamental service to the Congress and the free and open access to researchers. But it is important to understand that because of the Library of Congress' special relationship to the Congress, and more broadly to the government of the United States, the renunciation of this historic task of universality would severely diminish the capacity of the Congress to do its business and the United States Government to function effectively in a highly competitive and increasingly complex and technological environment.

Now, we do not have any blueprint for solving this network problem. I do not think that one of the ways of dealing with it is for the Library of Congress to go into discussion with other leading research libraries: "Let's divide up, you collect Russian, we'll collect Chinese." It may be that in the next stage, for the next Librarian of Congress, the exponential growth of knowledge will increase so much that universality will be unsustainable.

But the approach that I have defined, and that will remain the approach while I am Librarian, is to make this problem as manageable as we can by more qualitative collection. That is, in other words, to have the collection universal but not necessarily comprehensive. You are not going to have everything from a given country but theoretically we should aspire to acquire everything important in all those areas except clinical medicine and agriculture, where there are other national libraries that serve the government and the national community.

That is a very ambitious goal. We are open and experimental on most things, but on that I do not think we should leave any doubt: we have an obligation, as well as a history and tradition, to sustain this universality. Now that does not in any way diminish the cooperative relationship, because the real trick is to find ways in which the additive elements of what we will be able to collect, that will be additive to most other research libraries, can be shared.

I have to say I believe there is an intellectual reason for this, which is also important to all research libraries that strive for a large degree of comprehensiveness, although not quite the universality of record maybe that the Library of Congress has—but in some respects perhaps even more in some areas–and that is that great research libraries are places where people put things together and do not just take them apart. That is what a book is. And if we are going into areas where formats other than books are going to become increasingly important, the values of the book culture that built democracy have to be sustained; the value of putting things together, of trying to affirm comprehensibility, and the capacity of man to integrate and control his destiny through applied knowledge has to be sustained somewhere. It has not been adequately defended in the universities which have been turned over to the baronial departments, in my view, and to the academic disciplines.

Great research libraries have that capacity. They stand as witnesses to that value within university communities and we have to stand as witness to that in this political community and, to some extent, for the nation as a whole.

MS. BRYNTESON: I might suggest that of those 30-some million items in the Library of Congress' arrearages, quite likely a reasonable percent of those items might well be in the collections represented in this room already under bibliographic control, already cataloged and available for use to the nation's scholars.

MR. BILLINGTON: I believe most of them are not. We are exhaustively studying this problem at the moment, but the greatest amounts are in special collections and there are special print and photograph collections, the great *U.S. News* collection, the television collections, the manuscript collections, which are almost by definition unique resources.

MR. CURLEY: I share the sense of my colleagues that it would be nearly impossible for us to overstate the importance to all of us of the Library of Congress, and so I also share their delight that you are here with us and I hope it is the first of a great many such gatherings of this kind.

The Library of Congress is of enormous importance to us, not just for the many things that it does but as an enormously powerful symbol of something that does relate to the values of our society.

Sid Verba this morning said something which I would like to try to relate as a way of building up to a very broad question to you. It struck me when he said it as being certainly true in my lifetime, that in many elements of enterprise we seem to have moved from the challenge of simply knowing how to do the right thing to that challenge of determining what is it that is the right thing. Another way of putting this might be that, as others have suggested, we may have come to a point in our society at which we are confronting a crisis of values, certainly in the public sector. Many of us would feel that the issues, of which such things as fee-for-service are really a tip of an iceberg, prompt the question: Is there at this time in our society a crisis of values such that we have lost a consensus as to what it is that is right for libraries, for the proper role of government in our society?

An irony is that, as you indicated, you could go right back to the founding of the Library of Congress and find what we see as a new crisis, namely, a possible unwillingness of our society to support what in the past, they have quite willingly supported. Mr. Webster, I am sure, did speak for a portion of the society that was significant then and is significant now, which says, "That may be right but it's not right for government to support it or for this to be done in the public sector."

I have a similar kind of anomaly in the institution I represent. The great report of 1852 of the trustees of that Boston Public Library is so often cited for its articulation of a great and glorious role for the public library in our society. If you read carefully into that document, however, they also go on to express a timidity that is astonishing. Their vision for the role of the library is marvelous but they tiptoe toward city hall and suggest that, of course, the greater portion of the funds for this great enterprise would come from the private sector. Now, fortunately, for all of us, they did articulate their goals in such fashion that the public sector rushed to support that which they put forward.

Given that you have the perspective of an historian, as well as that of leader of our greatest library in the country, to what extent do you feel that we are confronting simply a practical economic problem of how we try, with limited resources, to do what is perhaps more than those resources would meet, namely, the problem of arrearages? Or is it that we have come to a point in our society at which role of the government, of great educational and cultural institutions in the public sector, has come to a point of challenge such that a crisis of values is upon us?

To the extent that you feel that such is the case, are we, the Library of Congress, the libraries represented in this room, really passive participants; or is there some role of a more active nature that we need to adopt to engage the debate relating to what the values of our society are to be? Are we to be Greece or are we to be Rome?

MR. BILLINGTON: I believe there is a genuine crisis of values in this country, that it is not just a question of economics. This is still a wealthy country and there is a crisis of values exemplified in the fact that we do not save, that we consume for the moment, that everything is a "throw-away" and so forth. And I believe great repositories of the artifacts of human wisdom, of aspiration, of anguish, of the achievements of the human adventure are inherent counterweights, if not rebukes, to instant gratification.

And our kind of society is in a deeper crisis of values than is widely assumed. If you read Washington's Farewell Address, you know he talked about a house of cards. Our whole political system depends on a lot of compromises and so forth. It ultimately depends on a moral people, which Washington went on to say he thought depended on their religious convictions, as individuals, not as a state or as a system. There was some depth, some sort of ethical fabric.

So, we are in a crisis of values and it affects libraries. Our literacy problem is a profound one because it creates passivity, and creeping spectatorism; and the great thing about reading is that it involves the active use of the mind, rather than passive spectatorship. We must help libraries to use new technologies in ways that reinforce the old and enduring values and, I believe, essential values for democracy and self-government. There has to be access to knowledge and there has to be active use, continuing active use of it. The people reading the books have to be writing books, not just extracting tidbits of information. We have to find the electronic equivalent of browsing. That is one of the real challenges. In our National Advisory Committee, that issue came up. The high tech people said, 'Oh, come on, all this sentimentality about serendipity in the stacks.'

There is a tendency in our society towards a sort of technological determinism, to assume that the values that librarians and great research libraries stand for are somehow anachronistic and outmoded. But they have never been more important.

But you are also facing, I believe, a deeper crisis in that the educational system has largely renounced its function of transmitting a heritage and transmitting values. I guess I am a believer—this is not my department but I am a believer—in some kind of core of knowledge as a common frame of reference, as a common language, precisely to *sustain* our pluralistic culture. Societies are held together by shared values. That is what I said at the beginning and I believe it is true. In our society, where we celebrate ethnic pluralism, religious pluralism, every kind of pluralism, there have to be some shared values, and I believe libraries are symbols and statements of a set of values.

The great public library system in this country was created very largely as a kind of second chance for immigrants. These people who could not get into the educational system had access to the public libraries. Now there will be second job chances for people all over the country as technology changes fast, but the libraries also, in the process, have to be enduring witnesses and sustaining places for the active mind, both its utility and its intrinsic worth. That is what we are in danger of losing. If we let the values of commercialism, consumerism, and instant gratification and short-term solution to everything—or the kind of memory-less preoccupation with presentmindedness—take over then we have the kind of soporific consolation of just somebody else's entertainment washing over us on television. That is why the cultural institutions that are entertainment oriented: theaters, museums—not that they don't have educational value, particularly museums—are better supported by the public than libraries. That is a statement of relative values that I find disturbing, not because I do not think museums have enough support but because the position of libraries, is not as strong either in the private or in the public sector as it was in Carnegie's time, with a large number of private benefactors and so forth.

We are very lucky in the Congress. Our committees, Senator Pell, Congressman Annunzio, Congressman Fazio, and others, have been very sympathetic and, I believe, very supportive. No other nation sustains the degree of support that the Congress has. So if you are dependent on us, I want to state very clearly that we are deeply dependent on the Congress and deeply grateful for the support that they give to all of you through us.

MR. CURLEY: I would like to bring the question of a crisis of values to one that applies particularly to the public sector in which you and I are both entrapped, which is one way of putting it.

When Ronald Reagan was running for his first term as president, Russell Baker, in *The New York Times*, wrote a wonderful satiric description of what he claimed to be Ronald Reagan's real campaign theme: "If elected, I will not go to Washington." It is fair to say that, to an extent, he was running against government, and it is also fair to say that there has been in this country a pendulum at work. To a considerable extent, over the last decade and more, we have been in a period in which what many saw as the excesses of the sixties, the Lyndon Johnson attempt to solve all problems by throwing a lot of money at them, have lead to a natural swing of a pendulum away from the notion of government in everyone's pocket and bedroom, if you will.

Is this really just a matter of a pendulum? Are we likely to see a reaffirmation of the role of the public sector in our society sometime soon as one that does have the important responsibilities in matters of education and culture? Or, in fact, has someone really moved the whole clock in a certain direction?

MR. BILLINGTON: I believe it is more a question of the pendulum than irreversible change. There are things central to the vital innards of this kind of a society that can only be properly sustained by a public conscience in the public sector. Now, that has to be worked out instrumentally so that you do not get a Napoleonic centralization. The two weaknesses are Napoleonic centralization or total commercialized decentralization, and I do not believe this country has historically operated with either of them. There is a pendulum that is swinging back and forth.

But, I believe, if there is a general crisis in the society, which all of us as librarians can address ourselves to, there may be a kind of minor perception crisis within the library community: that the great public institutions of which we are the largest can somehow be taken for granted. You take for granted what is offered and complain about something that is bothering you at the moment. And that is part of the American system too. Everybody's got a right to complain about everything. But politicians and the people who support the public enterprise, remember the complaints and they do not focus on the particulars. The academic institutions and the research libraries related to them have been deeply hurt by their internal quarrels in generating public support.

As one of the leading supporters of educational libraries once said to me, "Politicians remember the bad things." People say they do not remember the good things. Some quarreling is inevitable in a time of declining funding, but I am convinced this is a world where the boats will either rise or more or less sink together. So, we do have a problem of public support. We also have a problem of public understanding and, frankly, we have a problem of public behavior.

MR. BILLINGS: I do not want to trivialize the level of discussion by getting to too specific an example, but I believe it is necessary because I really want to stress the importance that I and my colleagues see of the connectivity between LC and the research library community. Using as an analogy your comment about putting the American Memory Project in a hypercard environment, it seems to me in some ways that LC is working in a hypercard environment these days where the research library community is not a button that gets pushed. I say that on this example.

My institution and seven other institutions in this room have been working very closely for a couple of years with LC on something that I think bears the prospect of being important to all of us: NCCP, the National Coordinated Cataloging Program. Over the last two years this program has generated over 78,000 records cooperatively through this program. Those records have all been contributed to MARC. They form part of the MARC Distribution Service; yet those institutions who have been involved in NCCP were not consulted as to our views with respect to the MARC Distribution Service, the licensing thereof, and the prospective conflict with what we have been doing cooperatively in that program. We are a button that has not been pushed.

MS. AVRAM (*Library of Congress*): Yes, you are right. We did not push that button prior to the announcement of the licensing agreement. I can only tell you that the Library of Congress has been going through a major analysis and a major reorganization and, because of this, those of us that very well know and believe in consulting with the library community were just a bit too busy to do it. I bear that responsibility myself, and it will be done.

That is one reason why we are issuing the delay on the licensing agreement. But I would like to take this opportunity to repeat what Dr. Billington said. The emphasis on that license was really not U.S. libraries. You must remember that at one time, about 15 years ago, I could have told you the name of every MARC subscriber and everything he did. Those days are gone forever. And we did not realize the impact that it was having on the U.S. It was designed principally for non-U.S. libraries. We had hoped to avoid impact on the U.S. libraries.

I am certainly prepared to now go out and get the pulse of the community and explain what we are trying to do. We have some very serious constraints ourselves. For example, we talked in our NCCP Steering Committee about the possibility of contracting with the current eight libraries and the others that we hope will join this in the future because, by doing that, you could catalog an item cheaper than we could catalog it and we all could use it.

But we have to have not only the cost plus 10 percent but the wherewithal to begin to be able to do those things. And it is these many-faceted complexities within public constraints that we are operating with. But I will be out there and will be asking you to help us arrive at some solutions.

DISCUSSION

A MEMBER: I think everyone in the room here very much appreciates what the Library of Congress has done and is doing for us. It is probably one of the more sympathetic audiences you have in terms of the pressures you are under from your constituents and your funding sources, because we have similar problems in our own environments, albeit on a smaller scale.

I had the privilege of working with someone once who used to say often that the truth was not really important, what was important was what people perceived to be the truth. What I hear quite frequently—I have heard it here this morning—is all of us asking the Library of Congress what we can do to help you with the struggles you are facing. What I hear in response, and this may be my hearing and not what you are saying, is what you would like to do to help us and what you are also doing internally to cope with improving the organization. But I really have not yet heard how we can be involved more actively than we have been in helping you deal with these problems, whether through more intense lobbying to get you more money, more effective lobbying, wider cooperation in the cooperative cataloging effort, or whatever.

I want to put that in a very blunt, straightforward question: what do you want from us?

MR. BILLINGTON: We want the things you mentioned. Certainly cooperative cataloging is a frontier that we are going to have to explore more, and we appreciate that it is where a division of labor will be helpful. Your support and interest are helpful. When you have feedback, send it directly to us, where it can be helpful.

What I have tried to explain to you is that we are trying to manage this institution in accordance with where we are going–from values to mission to strategy to budget, instead of the other way around. So, your understanding is helpful. And, if you are going to participate in the dissemination of information about the Library of Congress, make sure it is correct information and not misleading information. That is the first way you can be helpful. I was at a hearing on preservation, speaking exclusively for the appropriation that would go to research libraries, and it might have been nice if somebody from a university, rather than I, mentioned that 40 percent of the preservation microfilming was in fact being done in the Library of Congress and that we too have a budgetary need to sustain that program.

I do not have a feeling that people are not supportive. It is just that people see the Library of Congress as a great gray giant that has always been there and always will be. We are not trying to claim sympathy; we are simply trying to do a good job. It is very important to have better understanding and I think maybe we have not had enough.

Henriette Avram spoke well to the issue of consultation. I take the blame myself for giving Henriette so many duties that she probably did not have time to make all the phone calls she should have.

But we need support. We need understanding. We need feedback, and forums like this are very helpful. LC is a 190-year-old institution. It is not accustomed to much change, and so a transition takes a lot of time and energy. Its real value is not so much the new organizational structure but, the new management styles, the new climate of cooperative work that is emerging. It might be helpful to better understand that and not conceptualize it solely in terms of its shortcomings, because we are trying to begin a process, not create a product.

That process has to go on and it is going to be increasingly important. I do not know what the right form of buttons are but hypercard goes both ways. If we are not pressing the buttons, you press the buttons and we will respond. You can help with some creative ideas. Help us with new ideas, new cooperative ways of working together.

I do not think, for instance, that the fact that we are trying to sustain the universal collection obviates the need to cooperate. It means that we can cooperate on a different basis. We are not cooperating by the simple bureaucratic method of saying, "We'll do Chinese, you do Southeast Asian." The cooperation is going to occur in the more interesting fields of electronic sharing and dissemination, making sure that old values are sustained with new methodology. But we really need some help. One of the problems is how do you get, in a culture like the library culture, the entrepreneurial spirit without the commercial motors? That is very important. We need the spirit in the Library of Congress, but we also need it more broadly.

We need your ideas for dealing with our problems. I tried to lay out what the purpose of the licensing proposal was, and Henriette explained it more fully, but we really do need your ideas and, in the long run, we are going to need your understanding of some tough decisions that have to be made. We will try and consult. I may make decision that will hurt in the short run. I try not to take them until we have tested things and consulted. Where we have not consulted, we will step back and consult some more, but we will not defer decisions indefinitely because we are losing some of the races that are important for all of us.

We need your understanding of the facts, your creative ideas, for dealing with both what are LC's problems and our common problems. We do not want to set up too many bodies. But maybe we need some structures. Maybe you have some ideas about that too.

A MEMBER: This is not a question, rather it is a comment and not a critical one. In reference to the licensing, both the Librarian and Mrs. Avram have said that it has not been directed at the American libraries or the research library community, which leads me to believe that it is directed more to perhaps the overseas, foreign library community.

The United States as a nation has engaged in foreign aid in many ways—military, cultural, health, welfare, support for nations that look to us as a leader. We heard Mr. Verba say earlier today that one of the greatest strengths that the United States offers in the world is no longer in our manufacturing capability but in our scholarship and in our research.

Mr. Billington, in your comments, you used the word mission many times. I think one of the greatest missions the United States has is to share our intellectual capacity, the storehouse of wealth in information which we have been privileged to build up over several centuries. I hope that as a nation and as a scholarly community we will never put a price on this, but will see the sharing of this information as more important than the sharing of military arms and on the same level with the sharing of health services and human welfare to the people of Asia and Africa and behind the iron curtain.

MR. BILLINGTON: That is very well said. I agree with it, and we are doing it. We are doing a tremendous amount. I mentioned the volume and extend of our exchanges. Henriette has been exchanging some bibliographic tapes with the All Union Book Chamber, for instance, to try to work out kinds of sharing and exchange.

The Library of Congress is a universal library. People come from all over the world to use. When Mario Vargas Llosa, who is probably going to become the future president of Peru was a fellow at the Wilson Center, he was writing on Brazil, using books that he could not find in Brazil. Our collections are larger than, as far as we know, any total collection on Latin America, and that is just our Latin American collection.

This is a world library. It is a world resource. We share it openly. We have people from all kinds of repressed societies that come and cannot believe they can simply walk in off the street. They do not have to fill out anything, they just sit down and order books. We will sustain that, I assure you. And as the first Librarian of Congress whose field has been international studies and who deals in a number of foreign cultures, I have a very active interest in and concern for it. It is good for the country and it is good for the world.

There is no question about either our institutional commitment or my personal concern on this issue and there will be various ways we can do this. Many research libraries were helpful when we wanted to open an office in West Africa as well as East Africa and Latin America. Some people, again, wrote in and said that it is going to hurt the local booksellers or it is going to hurt somebody. In fact, it does not. This is a rising tide even for them. But it helps to hear what you say articulated as an important goal of the country and of its ideals.

Reconfiguring the Jefferson Building to be a building where there are reading rooms for all cultures of the world is a visible statement at the heart of the nation's capital that we are committed to the broader world and to interacting with it in a creative way. All those reading rooms, all our 22 public reading rooms, are open access reading rooms with a large international clientele.

The question of international networking and international sharing is a much more complicated one. We are going to have to do a lot of further study of that.

Henriette, is there anything that you want to add?

MS. AVRAM: When we started MARC, I believed in the tradition of sharing. We, the Library of Congress, first approached the National Library of Canada and asked them to remove the copyright so we could exchange tapes, and we carried that on with the British, the Australians, the New Zealand National Library and so on, working with national libraries. The first institution to put a licensing agreement or a monetary value on bibliographic records was the British Library. And, we worked out a continuation of exchanging records.

We catalog in the Library of Congress approximately 200,000 bibliographic items a year and we found ourselves in the envious position of exchanging records with such national libraries as Venezuela's. We got 3,000 records and they got 200,000, so there was something wrong with this exchange. But, in addition to that, other national libraries began to license: Australia, New Zealand, Germany, the United Kingdom. We were the last holdout internationally, so far as I know. National libraries such as Norway's are providing our records to a network in Norway who in turn is servicing 200 Norwegian libraries. This also happens in Holland. Why shouldn't the Library of Congress and the taxpayers in the United States get some return?

Our data is very popular all over the world. We believe in the tradition of sharing but we have our own economic problems, and so do the other national libraries all over the world.

NATIONAL LIBRARIES' LEADERSHIP ROLES AND RESPONSIBILITIES

THE NATIONAL LIBRARY OF MEDICINE

INTRODUCTION

Dale Canelas

Director of Libraries
University of Florida

I would like you to join me in welcoming Dr. Donald Lindberg, the Director of the National Library of Medicine. In addition to an accomplished career in pathology, he has made notable contributions to information and computer activity in medical diagnosis, artificial intelligence, and educational programs.

Dr. Lindberg, who became Director of NLM in 1984, was recently elected President of the American Medical Informatics Association. From 1969 to 1984, he was Professor, Chairman, and Director of Information Science at the University of Missouri School of Library and Information Science; and Professor of Pathology at the University of Missouri School of Medicine. From 1971 to 1984, he was also Director of the Information Science Group of the University of Missouri School of Medicine.

Dr. Lindberg has edited three medical journals and numerous proceedings and has served on several boards, including the Computer Science and Engineering Board of the National Academy of Sciences, the Symposium on Computer Applications in Medical Care, the American Association for Medical Systems and Informatics, the Organizing Committee for Med Info '86, the National Board of Medical Examiners, and the National Academy of Sciences, Institute of Medicine. He is the author of four books, among them the *Growth of Medical Information Systems in the United States*, several book chapters, and more than 150 articles and reports.

Since going to the National Library of Medicine, Dr. Lindberg has steered aggressively toward developing a system of medical information management. Considerable work has been done toward developing a standard medical nomenclature that would make such a system possible, as well as development of information retrieval systems that integrate diagnostic, medical, laboratory, and other data into a system of patient care management. He has begun a high-visibility outreach program aimed at both the professional and layman which, coupled with new and improved databases, has resulted in a more than five-fold increase in MEDLINE users over the past five years.

Dr. Lindberg is a graduate of Amherst College and received his M.D. degree from the College of Physicians and Surgeons, Columbia University. His honors include Phi Beta Kappa, Simpson Fellow of Amherst College, Markle Scholar in Academic Medicine, Surgeon General's Medallion, AMA Nathan Davis Award for Outstanding Member of the Executive Branch in Career Public Service, and honorary doctorates from Amherst College and the State University of New York at Syracuse.

This is our first opportunity to welcome Dr. Lindberg to speak to our membership and I hope you will all join me in doing so.

THE NATIONAL LIBRARY OF MEDICINE

Donald A. Lindberg

Director
National Library of Medicine

It is a privilege to be with you and a pleasure to tell you a little bit about the National Library of Medicine. I will do that first, and then address the set of questions that the organizing committee put together to introduce the topic of national libraries.

The National Library of Medicine is blessed with a simple and understandable mission: to acquire, organize, and disseminate the biomedical information of the world for the benefit of the public health. Now, that takes a long day to carry through, but the charge is understandable, and everyone who works for the institution does understand it.

Historically, the institution dates from 1836, when it was the Library of the Surgeon General of the Army. In 1956 it was changed from a military library to a civilian library; namely, moved into the Public Health Service through a piece of legislation that was sponsored by Senator Lister Hill and Representative Jack Kennedy. By 1968, we were physically located at the National Institutes of Health, which has been a good association. The library functionally is an institute amongst other institutes at NIH. In 1980, a second building, the Lister Hill Center, was dedicated. The Lister Hill Center is NLM's research arm. By 1989, another piece of legislation changed our mandate by adding to the existing National Library of Medicine structure a new center, the National Center for Biotechnology Information. That may not appear to your minds as especially noteworthy, but I think that you will look back 20 years from now and mark it as a very big milestone.

Functionally, what are our principle responsibilities? First, of course, is to preserve and to expand the collection of books, periodicals, prints, and photos, which you would expect to find in a great research library and which you find in your own great research libraries.

The second function of NLM is to improve access to that collection. As we all know, it is the caricature of a librarian to envision some person squirreling away the wonderful collection and metaphorically dusting the books on the shelf and shooing the patrons away. That unfair stereotype had certainly never applied at the NLM.

The *Index Medicus* itself has been published since 1879. The idea of a controlled medical vocabulary, of a system of nomenclature maintained by one agency, which all medical people now take for granted, was really a great accomplishment. It is a great relief to me and I am sure to Marty Cummings and the other NLM directors that John Shaw Billings began indexing the medical literature. His accomplishments are such that the staff sometimes refer to him as St. John. He is sufficiently great that his successors do not need to worry. We all pale in our insignificance next to John Shaw Billings. When Popsy Welch, the great doyen of American medical education, first professor and dean of Johns Hopkins, retired, he said that having studied this particular question for a long while, there were four major contributions of American medicine to the world. The last he named was the invention of the *Index Medicus* by John Shaw Billings, and he noted that, of the four, it was the greatest.

The Library has always been focused on access. In modern times, of course, it has more to do with computers and databases, and I know that you are quite familiar with such matters. The historic decision was made in 1960 to computerize the production of the printed *Index Medicus*. As a result of the success four years later when the first computerized version was printed, the institution became a de facto leader in computer-based access to the literature. A few years later, in 1970, the feasibility was demonstrated of making online queries against the database.

Along the same line, it is noteworthy that NLM was the first major account of the Tymshare Corporation, the first of the American value-added networks. In a sense, we put them in business. And those service have improved and been enhanced steadily over the years.

I will speak about where I believe we are going. I believe we are going to the same place you think we are going; namely, into ever bigger, faster, more enhanced, and user-friendly network services. There are organizations within NLM that take care of both the creation and maintenance of the databases and electronic access to them.

There is a second aspect to access that I never fail to be amazed at: the regional medical library network. If I ever get to be as venerable as Popsy Welch, and someone asks me what American medicine contributed to the world, high on my list would be the regional medical library network. It is a great accomplishment.

The authorization for such a development came in 1965 as a result of recommendations in the *Report of the President's Commission on Heart Disease, Cancer, and Stroke*, chaired by Michael DeBakey. The Report led directly to passage of the Medical Library Assistance Act. That act is very important because it gave us authority and, as it turned out, funding to organize within this country a hierarchical regional system for ensuring equal access to scientific information. Wherever a patient needs the information, wherever the patient's health care professional is located, the system, to an amazing extent, has succeeded in providing it.

Naturally, in the early days the focus was on interlibrary loan and photocopies of articles. That function is still terribly important and there are some two million library loans per year that are processed through a computer system called DOCLINE, and probably an equal number that are provided on a local basis. The intent is to maintain a referral situation so that one can get access to information needed for patient care, wherever the need arises.

The Regional Medical Library System, viewed from the top down, consists of the National Library of Medicine, seven regional medical libraries, 125 resource libraries (those include the major research libraries), and, at the base, approximately 4,000 local biomedical libraries which include hospitals and major care facilities. Visitors from abroad are always amazed by this element of what now is called infrastructure. It is always frustrating to me that I cannot "show" it to anybody because the whole point of it is that it does not exist in one place, so we draw maps and put in pins and lights that light up. We are running about 4 million online searches per year. We believe there is an equal number provided by commercial vendors and by universities which operate subsets, so it is not a trivial operation.

The third function of NLM is a research function. We have a mandate to conduct research and development through the Lister Hill National Center for Biomedical Communications. It occupies the bulk of a 10-story building next to the NLM building. The Center has accomplished wonderful things in the past, and we look forward to remarkable things in the future. Now there is a second research component, the National Center for Biotechnology Information that I referred to earlier, and which I will describe in greater detail later.

There is a fourth function for NLM which, like research, may not be as familiar to the institutions represented in this room: the awarding of grants-in-aid for research and for resource building. We have that statutory authority. Our current granting authority is about $16 million a year. We could use profitably several times that amount, but our present level supports some very seminal and important research throughout the biomedical community what we have come to call medical informatics.

I thought I should mention to you the NLM long-range plan because I know that ARL itself is going through a planning process. In 1985 and 1986, we undertook a planning process that was for us highly salubrious. It was quite a taxing effort, but it was a good one with a good outcome. Five panels involved approximately 120 non-NLM people, non-NIH people, non-government people, for the most part. Numerous forward-looking recommendations resulted. Let me mention several highlights.

One is the focus on electronic databases. It was quickly concluded by the group that therein lay the future. They distinguished between the bibliographic databases we operate and something that was termed "factual databases". Examples of the latter were in the chemistry and toxicology area. But when we pressed further, the advisers said factual databases are going to be even more important for our planning horizon of 20 years—to the year 2005.

When I asked them to be specific, I reminded them that we have limited dollars and usually an even more severe limitation on the number of full-time persons we can employ. So what do we do? We cannot do everything that is worth doing. They replied that the most important category of factual databases does not exist yet, but it will: biosequence databases, the nucleic acid sequences that characterize genes, the DNA, the amino acid sequences that characterize the protein products of those genes; and a number of other computer databases that relate to this new science, such as x-ray diffraction, coordinates for the three dimensional structures of protein products, enzymes which snip up the DNA into usable pieces, and biological elements by which those can be transferred from one organism to another. The tool chest of the microbiologist will be increasingly reflected in computer databases.

As a direct result of that long-range planning exercise, the late Senator Claude Pepper took an interest in this problem. The oldest member of Congress with demonstrably the youngest ideas, he then sponsored the bill which created the center and provided its funding. This demonstrates that not all planning is a sterile exercise.

We now have an update for our plan. We said we would do it every three to five years. It turns out you do not have to redo a good plan that is well tracked every three to five years, but you should update it. Our first update used a planning panel on outreach, chaired by no other than Michael DeBakey. He did a marvelous job. It was a pleasure to see the man who chaired the President's Commission 25 years earlier still in fine fettle, with an even more illustrious reputation and even deeper and more insightful interest in libraries, chairing this new study.

The outreach panel first recommended, and the Board of Regents accepted, that NLM should concentrate on outreach to individuals. The panel pointed to the great success of the regional medical library network, but acknowledged that it was fundamentally a library-to-library mode of operation. In the past, NLM always said it was the library's library, but now times have changed, and we have many hundreds of thousands of individual health care practitioners with personal computers and modems. We have a number of commercial value-added networks. We offer the ability for the individual doctor to get the piece of information he or she needs to treat a patient at the time and place that that information is required, and that is something new under the sun.

Secondly, the planners said that hospital libraries, as contrasted with the academic and ARL-type libraries, are not as well served by NLM. We knew that as well. They also said that we should increase the number of biomedical personnel who are trained in the new medical informatics. There are training grants, and we have increased, to the extent that we have the money, the number of training sites. We have also increased the number of the training positions and introduced a new type of individual fellowship. Finally, the planners urged that NLM continue to develop new products.

With that as general background about the NLM, I will address the questions that were raised by the organizing committee. First—what new roles and new services are envisioned? In my answer, I must note three important trends. First, there are many more kinds of health care professionals than there used to be. Where formerly we meant just doctors and nurses and dentists, today there are many important health service professionals, and we want to serve them all.

A second trend is the increasing importance of continuing medical education for the doctoral-level health professional. That has always been an obligation, but it is now a much more serious matter. It is jokingly said that a doctor's education has a five-year half-life. I am beginning to think that is a high estimate. I have been exceedingly fortunate in my own situation. Nevertheless, even at NIH, with the densest concentration of biomedical scientists in the world, I have to work hard to attempt to stay current. It is difficult to keep up with and understand what molecular biology is all about and what the Human Genome Project has done this week. A patient may ask the doctor, "Is there a test, a DNA probe, one of these things which I read about in *The Washington Post* (or *The New York Times* or *The Wall Street Journal*)? Is there one of those things for me, for this disease I'm worried about?" The doctor would be foolhardy to say "no" without doing a literature search, because last week there may not have been, this week there may be.

Then, lastly, there is a much more educated and aware public. This presents a problem for NLM, because we do not undertake to serve the public directly. We are certainly not opposed to it, but we simply do not have the staff and funds to do it. Also, we do not know how to do it. We serve the public through the health care professionals. Many medical libraries, however, do serve the public, and we do what we can informally to help. But we do understand that the public is increasingly well informed in health matters. I should make clear that we do *not* restrict access to our collection in any way; health professionals and the general public alike have access.

A second question I was asked to address is access by the U.S. research community to foreign information, products, and services. The NLM program most relevant to that question is the new National Center for Biotechnology information (NCBI). The Center's authorizing legislation tells us to do what we can to share biotechnology information on a worldwide basis and to bring information from abroad to the U.S. That is a specific authority and obligation. You are perhaps aware that Europe has the European Molecular Biology Laboratory, the EMBL database; Japan has the DNA database. The Human Genome Project is truly a worldwide project, and we Americans are quite willing to share the work. We would like to share the expenses also. The project to map and to understand the chemical makeup of the human genetic complement has incredibly important potential. It is not just the most exciting project of this decade; it is the most exciting project of this century. It will have untold good repercussions. The scale is immense. We know now about 20 million sequences. There are roughly three times ten to the nine—three billion—sequences for a haploid, that is to say, half of each of our complements of genes. Naturally, it is of no use to single out one person in the whole human race and say we will characterize that person as the human genome on that one person's haploid genome. Besides, doctors are always interested in disease states, that is to say, an *abnormal* genome. So you want many, many, different ones. Our understanding of the human genome is greatly informed by so-called lower organisms, some surprisingly lower, like yeast; Drosophila, that is to say, the fruitfly; lice; and very important in our understanding, E-coli.

The enormous amount of data that will be the product of the human genome project will reside in the National Center for Biotechnology Information at NLM. Our obligation will be to make those data available, understandable, and usable to the research community, initially, and subsequently to the practice community.

The first task of the NCBI, which is headed by a brilliant young scientist, David Lipman, is going to be to integrate and coordinate such things as the terminology, the format, and the recording systems of all of those biotechnology databases, so that a scientist can make one query and have it integrated across whatever databases contain the answer.

Another question I was asked to address was about dissemination of U.S. government information. Although our legislation does not specify that we must disseminate U.S. government information, in some cases we do. I will cite three examples. In the area of cancer, there is the PDQ, which is a cancer protocol database. The subject matter expertise lies with the National Cancer Institute. The machinery that runs and disseminates it is at NLM, and both parties are quite proud of it.

For emergency chemical spills, the HSDB—Hazardous Substances Data Base—was created by NLM's Henry Kissman and his staff. The HSDB is used at various spill sites around the U.S. The HSDB contains government-generated information from a variety of sources that can be used to help cope with the dangers of toxic releases.

In the environmental area, there is a new database called TRI, Toxicology Chemical Release Inventory, mandated under a law governing the Environmental Protection Agency. The NLM agreed to put this file on our system because it is potentially a scientifically important database. It has to do with how many planned chemical releases into the air, water, and ground are coming from chemical factories. NLM has put the TRI on its distribution system not because there is any law obliging us to do so, but because the knowledge in it is going to be enormously important and should be made available to the public. The only alteration in the proposed system I insisted on was that there be location coordinates on those observations so now we know the precise point of the discharge and we can correlate that with epidemiological changes, prevalence of incidents, and even, in fact, with underground water and with air flow.

The next question to be addressed was how technology can enhance access and enhance resource sharing. This is a subject we are very much interested in. GRATEFUL MED is our leadoff product of user-friendly front-end software packages. That software is responsible for the recent dramatic increase in the MEDLARS subscription numbers. Every six months to a year we release improved versions for the PC or Macintosh. We intend to create an artificial-intelligence-based expert reference "librarian" to sit at the elbow of every user. Right now, that is an exaggeration but, if you invite me back in a couple of years, I hope to be able to tell you that it is a reality.

CD-ROM is the new technology; you are as familiar with it as I. NLM has signed agreements with 15 private companies to produce CD-ROMs of MEDLINE. There are eight products on the market now, each slightly different, and each contending for market share. Their marketing strategies certainly are better than would have arisen out of the federal government. Good marketers do not work in the government. That is not our job. This private side marketing is probably a good thing for increasing market penetration.

The Unified Medical Language System (UMLS) is a very complicated scheme to explain, so I will not undertake it. The UMLS is a national experiment designed at producing intelligent programs that can understand the meaning of a medical query expressed in ordinary clinical language and then map that query unambiguously to the stilted, formal language we require for indexing the literature. We intend to extend the UMLS concept to patient records, to knowledge bases, to factual databases and, of course, we are starting with MEDLINE and NLM's own vocabulary, MESH.

Another high technology area for scientists is that of professional work stations—the high resolution CRT with a big local computer, a big local store connected to highspeed lines and some data, as much as possible, stored locally, the rest stored in national databases with the means to update the local file. That will be a high tech work station but it is a high tech problem.

The last example is highspeed communication networks. We are certainly enthusiastic about what the Department of Defense and the National Science Foundation have built. We at NLM want to be part of it, representing biomedicine.

I was also asked to comment on financing library programs, indexing, fees and/or user charges to recover costs and to supplement appropriations. First, we do not use fees to supplement appropriations. We use fees to cover the marginal costs of new services and special benefits. Our annual appropriation covers acquiring and organizing the literature. That includes everything up to and including cataloging for CATLINE and the indexing that goes into producing the *Index Medicus*. It does not include providing that information as an online computer service to any of the four million requesters who accessed our computer system last year. We consider that to be a special benefit, and we charge them 100 percent of the marginal cost of providing that service. This is the policy we have settled on after long debate, with many "kibitzers" and agencies offering their views. It has turned out that this paradigm has now, amazingly enough, been endorsed by the Office of Management and Budget, even though initially they did not like the concept. They are persuaded now. In fact, we are occasionally pointed out as a model to be emulated. It turns out that collecting 100 percent of marginal costs still makes it a reasonably priced service. There is a surcharge of roughly 15 percent for foreign users, just to compensate them for lacking the benefit of being able to pay U.S. taxes to create that database. This has been accepted as fair by the appropriations and authorizing committees.

There is a second aspect to our fees and licensing arrangements that, I believe, is equally important, namely as a means of quality control. Because about half of the four million inquiries last year were for managing individual patients, we are concerned that the integrity of the databases is maintained by commercial vendors. We do not want commercial firms failing to keep the database up to date or providing poor search software. Our licensing arrangements are an integral part of this quality control. The corrections to the database that we require increasingly involve calling attention to fraud in science or to honest errata, which can be equally as dangerous. We are not so concerned about how many "Rs" are in the author's name, but we are concerned about how many zeroes follow the decimal point in the drug dose. Licensing gives us the mechanism to ensure that needed corrections are promptly made.

There are many, many other questions that could be taken up, but time does not permit me to go further.

PANEL DISCUSSION

Rachel Anderson, Columbia University
Dorothy Gregor, University of California, San Diego
Gloria Werner, University of California, Los Angeles

MS. ANDERSON: First of all, I would like to thank Duane for inviting me to participate in this discussion of the National Library of Medicine's programs and roles within the context of the entire national research library system, and to raise issues from my dual perspectives as head of a health sciences library and as a senior manager in an ARL library system.

I would like to bring up a program that Dr. Lindberg did not have time to mention. I would like him to discuss the IAIMS program, Integrated Academic Information Management Systems, within the context of ARL libraries.

The IAIMS program has engendered substantial interest in the medical community—not just in the medical libraries, but in the medical institutions themselves. The National Library of Medicine funding, via the grant mechanism that Dr. Lindberg mentioned, has stimulated libraries to move beyond traditional roles of collection building, storage, and retrieval into collaborative endeavors in developing campus environments for electronic knowledge management.

IAIMS has also been influencing medical institutions and medical libraries that do not receive direct NLM support. The significance of an IAIMS project in an institution is far greater than just the machines, the wires, and the databases that are installed. It is the IAIMS process itself that is very beneficial and enlightening. The process calls for an institution, with the library as a major collaborator, to take a rational and planned approach to managing its information resources, the substantive content as well as the hardware, and to maximize their accessibility and use in order to meet the varied needs of the user community.

Academic and research libraries in general are also addressing the scholarly communication process and how it can be enhanced through information technology. But what is being learned in the health sciences libraries provides lessons that have generic applicability outside the medical and health sciences subject domain.

I would like Dr. Lindberg to comment and to address ways in which you think this information can best be shared with the broader academic community that is represented here today.

DR. LINDBERG: I am enthusiastic about IAIMS. There are a lot of good things to say about it.

The initial idea was that we would pay for or help pay for planning in health science institutions that were prepared to make a plan for an institution-wide set of information services. So, to begin with, the eligible institutions were the leaders. They typically started out not needing to be told what a computer is; rather, they started out knowing that they had four, five, six, seven, eight computer systems, none of which spoke to one another. Of course, such medical schools tend to exist in the midst of great universities that have many departments and multiple campuses and all of the accompanying complexities. It is certainly not separate from the general university problem; but we were only looking at the medical part.

I agree wholeheartedly with what Rachel said. Many schools have written me saying that the application they filed and the site visit they got were handled fairly and, although they were sorry they did not get the money, it did them a lot of good anyway. Several are going to do their best to carry through the program, even though they were approved but not funded.

How are the schools going to benefit from such technology as the gigabit networks unless we first move in IAIMS grants and resource grants that let them get hooked up and trained to use it? That is the real challenge for medical institutions. Without a local network, for example, there is no possibility of attaching to the national network. Schools that do not have the infrastructure will get left in the dust. The poor will get poorer and the rich, richer.

MS. WERNER: It is clear from what you have said, and certainly from what I know as a former regional medical library director, that NLM takes a very pro-active role in improving access to information for health professionals, conducts and sponsors research initiatives, and has a model communications system in terms of the regional medical library network. We really have nothing comparable within the ARL community. In recent months I have been trying to think through what kind of paradigm NLM can serve as we try to look at roles of the Library of Congress, which is not technically a national library in the same sense as NLM. I wonder if you have any thoughts on this.

DR. LINDBERG: I believe you are right, there is an opportunity for leadership in the broader library community that might learn from the medical model, although I do not know how close that modeling ought to be or is justified in being. We started with authorizing legislation; starting without such legislation would be foolhardy. You would be marching off in all directions without anything to measure your success or failure.

You may be sure that there will be things that will go seriously wrong with a program as ambitious as Gloria is suggesting. You have to have legislative authority to fall back on, to be able to say, "We made a mistake, but we still have the responsibility and we're still going to do it." Otherwise somebody will just rap your knuckles and say, "You just wasted a lot of public funds and did a silly thing; don't ever do it again." So, I would start with a real policy and buttress it with real legislation.

MS. GREGOR: This is a question about priorities. You mentioned in your remarks that there was a very long list of wonderful things to do and limited resources. And there are many days when I think the really hard thing to do is to decide what not to do. It is also not as clear or as neat as it used to be who NLM's users are. Certainly there is a library community and certainly there are health professionals. But when you look at the public health area today, it is not at all clear where health starts and ends.

And then you look at what NLM's programs are attempting to do. On the library side, there are the preservation programs, cataloging, and converting MESH into MARC format. On the end user side, there are GRATEFUL MED and Medical Informatics. How do you set those priorities?

DR. LINDBERG: That is what budgets are for.

MS. GREGOR: Yes, but how do you decide where to spend those monies?

DR. LINDBERG: Budgets are a very useful management tool. Some of our budgets are earmarked. For example, I made a special pleading to the Congress for support of this Unified Medical Language System. And they understood quite well what I was asking them for. When I tried to tell them about artificial intelligence-based knowledge representations and schemata and so forth, their eyes glazed over. But when you talk to a lawyer about the Babel of tongues and the ambiguity and lack of language, and how you use this to find a reference, they know that perfectly well. They have exactly the same problem. So those funds are earmarked for UMLS.

I admitted to them that it was a five- to ten-year project and, if it succeeded, it was going to cost even more. I told them that it was as big an undertaking as developing MEDLARS and we did not even have a model—there was no manual system.

Such earmarking of funds is a help to us, although sometimes it is awkward. One of the things which does not have fantastically strong "take-up-the-bricks-and-build-barricades" appeal is standard, everyday, library operations. Buy those resources and log them in. Even if you do not dust them, log them in. We have to make extra-special strong pleas for Lois Ann Colaianni's area, Library Operations. There are years in which the acquisitions budget is crimped, and maybe we have to work a little bit harder the next time. The year that we got the new funding for the Biotechnology Center, $8 million, Lois Ann lost about half a million dollars. That isn't right, it isn't fair, it isn't ideal. On the other hand, it is a budget, it is the spirit of the law, and it is what we did. It was not irremediable, either.

The present DeBakey Outreach Plan says, and I believe absolutely correctly, that NLM could well use, and the nation could well profit from our having, an additional $26 million a year. In actual fact, the library will end up with an additional $4.5 million earmarked for outreach, so we will have to assign priorities to all of those outreach objectives.

I don't know how to answer better than that. No little kid gets all the money he asks for, and no institution gets all the money it could use.

MS. ANDERSON: I would like to raise the subject of education and training, although you did refer to it as being among the recommendations of the Outreach panel. NLM has for many years played an important role in educating and training librarians and others who are working with medical information, through its training programs, including programs for librarians—such as the one at the UCLA Biomedical Library, which was very instrumental in identifying and cultivating many who have subsequently become leaders in the field, both in medical librarianship and academic librarianship.

Also, new NLM products and services continue to set service agendas in libraries and in effect define the new skills that librarians will need. Tomorrow, at the demonstrations, the ARL directors will get to see some of the newer products that are going to influence the skills that will be needed by people who work in our libraries.

Recruitment of staff with these requisite abilities has become difficult, to understate the case. Here again, while the subject areas and backgrounds may vary, is a problem faced in general academic and research libraries, as well as in medical libraries. Many of the capabilities that are in short supply are needed in these libraries, as well.

There have been some preliminary explorations of what NLM's role could be in addressing this problem, and I was wondering if you could discuss what you view as the possibilities in this area, and whether you see ways in which what NLM does could be leveraged through coordination of efforts with other agencies and institutions.

DR. LINDBERG: Yes. I do not want to dodge that question. We know that the education of medical librarians is an important one and that it is not being done adequately. That is to say, everyone wants to see these "walk-on-water" type persons come out of the schools and many schools are having a problem even getting the bodies to walk into the school. So we know that there is a problem, and I am not going to tell you I know what should be done about it.

The training of health science librarians was addressed in the long-range plan; Bob Hayes from UCLA chaired the planning panel that addressed it as one of the major issues. But we did not get a definitive statement. We will try to play a convener role, a learn-and-listen role.

What we know from experience is that the Medical Informatics training programs are turning out extraordinarily able people. I always had library people in the program out in Missouri. It did not grant a doctoral degree, so they all have master's degrees; they are excellent.

That is one way to bring the two schools of thought together. I do not know whether that would be taken as a general solution or not. But I think there is a lot of discomfort about the question, "Are the library schools doing the job we really need for them to do right now?" Obviously we have to involve the schools, you in the profession and, presumably, the future employers in crafting a solution. I do not know if the solution is money or laws. It sounds like it is an area where ideas and wisdom are more scare than any other resource. That is what we will look for first. We certainly do not attempt to tell the medical schools how to conduct medical education. Heaven knows they would not listen to us. I do not imagine that the library schools would be any more receptive.

MS. WERNER: I would like to switch gears for a moment. It is my memory that NLM takes very seriously its mandate to investigate the information-seeking habits of health processionals, and to enhance products and services based on what you learn from these assessments. All of the libraries represented in this room have a real need to do a lot more of that, but our ability to do it in a systematic way, as I believe NLM has done, has probably, it is fair to say, been pretty limited.

Could you give us a little insight into some of the techniques, such as critical-incident techniques, you have been using recently in this area? What you are learning from these different approaches?

DR. LINDBERG: You are right. All of us need to study users. That is how we learn how to make new products, and how to do better. The critical-incident technique is a thing that I introduced, lacking anything better.

Fundamentally, we want to know about our users, as well as people who do not use our services. We did a mail survey of users engaged in patient care and the results were quite interesting and revealing. That piqued my interest and I asked the following question: "What is the value of the information that we deliver?" I wanted to know: "What happened? What did it do? Did somebody get better? Did somebody get worse because we could not deliver the information?" I wanted to know the name of the patient and the diagnosis and what was the question being asked, and what the care giver did as a result of the information. We tested the waters by gathering up what I suppose could only be called "war stories." They were very interesting and very useful, but they were so numerous that we decided there must be a more scientific approach. So the question was: How can you systematically go about that? The critical-incident technique was invented by John C. Flanagan in World War II. He was an Army Air Corps Colonel, a psychologist, in charge of pilot selection. He placed himself in charge of pilot debriefing, and wondered, could you learn something from people who had flown the missions that would help you in better selecting the next group? He came up with the idea of a "critical incident." What was critical? He took as critical a case where you dropped bombs but did not hit the target. He did not want excuses, "Boy, the Gerries put up lots of flak." He wanted to know: If you bombed the wrong target, obviously something critical went wrong; what was it? And the answers were really quite remarkable. "Well, we picked the wrong city." Sometimes they picked the wrong country, they bombed Anglia instead of Germany. They were at a great advantage, having a set of critical incidents. It is hard to translate that directly into medical terms, to be frank. But, anyway, they learned a great deal from it and they got a feedback system. And that is exactly what we at NLM were after. We want to know: "How are we doing, folks? I mean all four million of you. What are we doing right, what are we doing wrong? If you didn't get the answer you needed, did it matter? Was the search prompted by curiosity, or did the results matter to a patient?" We need to know in detail about those uses.

The critical-incident technique has been very useful in our hands. One conclusion of the critical incident study is that the uses of the system are much more varied than I would ever have guessed. Some of the examples really do involve legs lost and saved, and lives lost and saved.

MS. GREGOR: We would appreciate hearing an update on what you are doing with in-house automation. A lot of what NLM can do, both for other libraries and for your other efforts, will depend on how well you run behind the scenes. Could you update us on what your efforts are in the behind-the-scenes automation areas?

DR. LINDBERG: As you know, NLM was a leader in online indexing and cataloging. We are extending that and putting terminal devices or personal microcomputers out amongst our contractors. So we understand that everything *should* be online.

You might assume that the big American and European publishers would be way ahead of the library community in automation, but it turns out that is not really true. We have been working with a major publisher, just at the simple-minded level of trying to keyboard the citation and the abstract only once. "If you, Mr. Publisher, want to do it, we will be happy to pay you, because then we will not pay for another keyboarding. And we will get it faster and better." We have been attempting to do this for three-and-a-half years. And we have yet to get them to do it right.

My feeling is that libraries can hold their heads up. We are doing pretty darned well. The big industries are behind in many respects. At NLM we do some indexing from page proofs, some from galleys. We are looking at this all over again because we want things to work smoother and faster. We used to update MEDLINE once a month, then last year we went to once every two weeks. We think this year we are going to update weekly. So when we talk about saving, how many days are we going to save with online improvements? The ante is getting higher. An idea has to be really pretty good to work now, whereas, ten years ago, any old idea was better than what we were doing.

DISCUSSION

A MEMBER: You mentioned to us that on licensing and on fees that you charge, you recover marginal costs in some cases, in some cases it is 15 percent for international users, in still other cases it is to ensure the quality of your database. Do you feel that it would be a limitation on you, or would be in the best interest, if we were to push for a national standard on government information that would say, for instance, all government information is marginal cost plus x percent, or that licensing can only be in the case where you are ensuring quality of data, not in the case of supplementing budgets across agencies? Right now the Library of Congress obviously applies a different set of criteria.

DR. LINDBERG: That is certainly a fair question. And I wish I knew how to give a wise answer. I hear frequently that the U.S. ought to have a national policy for information. Ten years ago I would have agreed. However, the more I have seen of how legislation gets written—played upon by special interests of one sort or another, influenced by legal, outright lobbying—I do not feel quite so bad that we do not have a national policy. If we did have one, the legal authority clearly would rest with the Office of Science and Technology Policy (OSTP). They have been asleep at the switch for several decades. And as a consequence, an *ad hoc* policy has arisen out of individual legislative committees and the Office of Management and Budget. I do not believe that is really where it should come from. For example, the Paperwork Reduction Act, as interpreted by those above us, for several years prohibited us from publishing a catalog of 17th century holdings of the National Library of Medicine. It took years of scholarly preparation. We had the budgetary authority, we had the money. But we were told, in effect, that under the Paperwork Reduction Act, the world does not need that paper. We eventually prevailed, but I am now somewhat jaundiced in outlook. I would certainly like a *wise* information policy.

A GUEST: This is a detailed question, but I regard it as a sort of test of NLM's attitude towards openness of information. Like many other libraries, we have purchased two or three subscriptions to MEDLINE on compact disk. I was asked to sign an agreement, one of the clauses of which was that I had to return the disks at the end of the subscription year. I queried that with the supplier and was told that this was NLM policy. I wrote a polite letter to NLM to ask the reason for this, because it struck me as being illogical when we are never asked to return paper volumes. And I received no reply to my letter. I wrote a second letter and again have received no reply. So I could not resist the opportunity of asking you the question.

DR. LINDBERG: We had in mind the general nightmare of the world filling up with out-of-date CD-ROMs of MEDLINE. In fact, there are a number of ways to handle it. The best would be for future MEDLINE CD-ROM products to have GRATEFUL MED on them, thereby permitting users themselves to be updated with the most recent knowledge and/or retractions. We plan to begin such a policy later this year.

I felt uneasy about another aspect that you did not bring up, namely the thought that somewhere, someplace medical students are being told that they need only search the last year of MEDLINE in order to practice good medicine. A number of the CD-ROM suppliers now are providing the database and the program as two separate elements and telling the client about updating the disk so that it will not have to be returned. The program just will not read it.

If the complaint were, "I bought the disk and I want to use it, however out of date and obsolete and useless the information is," I guess I would say "Hurray, that is wonderful." In fact, we did just make that agreement for the case of the Sudan.

A GUEST: Obviously we are continuing the subscriptions. But we have six medical libraries and with the cost of additional copies of the disk, really we cannot afford to buy six subscriptions. So we might well use the old year in one of our other libraries. And ethically I would not notice anything wrong at all in that.

DR. LINDBERG: We believe it ought to be updated at least quarterly, because there are errors. There are errors and there occasionally are fraudulent papers, which get taken out. We have a number of circumstances in which those truly were serious considerations. I suppose none of these things are immutable. We were not really intending to increase or decrease some commercial company's subscriptions.

The answer, truthfully, is in getting the volume up high enough that the unit cost can be low. The vendors are going after what they consider an institutional market, namely libraries, as opposed to individuals. It is perfectly clear that once you can drive the cost down to anything approaching an individual or a partnership level, the costs are going to be a tenth what they are now and become, essentially, trivial. But that would not alleviate my feeling that there ought to be GRATEFUL MED or something equivalent on the system so one could get an update when needed. If you are only looking up something for the purpose of learning what is an oncogene, for example, you do not need to have that week's corrections. But I would hate to see an out-of-date disk used in a patient care area.

NATIONAL LIBRARIES' LEADERSHIP ROLES AND RESPONSIBILITIES

THE NATIONAL AGRICULTURAL LIBRARY

INTRODUCTION

Marilyn Sharrow

University Librarian
University of California, Davis

Our keynote speaker for this session is hardly someone who needs a lengthy introduction; he is well known to the ARL membership.

Joe Howard received his bachelors and masters degrees from the University of Oklahoma. The first library post that he held was at the University of Colorado, where he was music librarian. He became the circulation librarian and subsequently was head of public services. He then took an opportunity to serve with the Peace Corps in Malaysia for two years. Returning home, he became Chief of Cataloging at Washington University in St. Louis.

The lure of the nation's capital brought Joe to the Library of Congress, where he first was the Assistant Chief and then Chief of the Descriptive Cataloging Division. He did so well there that they made him Chief of the Serials Record Division. He became Assistant Director for Cataloging in the Processing Department and, finally, Director of the entire Processing Department. Joe began the minimal level cataloging project. He started the Name Authority Cooperative Project, NACO, and he also began the Cooperative Cataloging Department.

In 1983, Joe became the Director of the National Agricultural Library after successfully serving there as the Acting Director for about six months. He has been an enthusiastic advocate for NAL. The cornerstone of his administration has been his ability to relate to NAL's many constituencies, his human approach to management, and his easy style of communication. I know we are going to enjoy his talk this morning.

THE NATIONAL AGRICULTURAL LIBRARY

Joseph H. Howard

Director
National Agricultural Library

I plan to present a brief statement about some of our programs and leave plenty of time for questions from this distinguished panel of land grant librarians, as well as questions from you. The National Agricultural Library is your library. It belongs to all of us. I feel that anything we can do to get input from you and others interested in agricultural information, the better off we are.

I will not talk about how we run the Library, but I will mention a few of the programs to give you some background. An overriding principle of the National Agricultural Library is the provision of access to and facilitating the use of quality agricultural information through a cooperative network, in a timely fashion, free, if possible; and, if not, as cheaply as possible.

I would like to present a few administrative imperatives that we in the Federal Government face. The first is to decrease the size of the government work force. We at NAL are 20 over our limit. We also have to cut the operating budget. I will talk a little more about budget in just a moment. Another policy that we are operating under is that the public should pay for what it gets, and that we should not compete with the private sector. These policies are difficult things to work with in the whole picture of operating a national library.

By the way, the statement "The public should pay for what it gets" brings up a pet peeve of mine. As soon as you start charging, you have to charge for the price of charging, it seems to me that more than doubles the cost. It hurts to charge for interlibrary loan but we must recover the cost of photocopying.

Let me talk about the NAL collection. Our collection contains materials on agriculture in the broadest sense, including nutrition, gardening, cooking, etc. We can help many of you even if you are not a land grant library. We have two million volumes, give or take a few, 18,000 current serials, and about 860,000 microfilm units. We have 200 staff members, and we have the equivalent of 30 more on contract.

Who are our constituents? We, of the three national libraries, are unique on that we serve the Department of Agriculture, as well as other government employees. Our chief relationships are with the land grant university libraries. Like the other national libraries, we serve as a library of last resort, except in the case of the USDA; we encourage people to use their local libraries before coming to us.

As for NAL's budget, we have received regular increases in the last few years, except for $10,787,000 which was the Gramm-Rudman-Hollings cut. It nearly slit our throats—we are still recuperating from it. You can see that there has been an increase in constant dollars. I am pleased when I get any increase—even if small. Since there are no additional dollars for the Department of Agriculture, when I get an increase, some other agency gets cut. So you can see the potential problem we have in maintaining friendships within the Department of Agriculture. You should know that every increase is earmarked for new programs, with no funds for improving the general programs. We have, however, been able to get more for the book budget.

I would bring to your attention what this budget does not have in it. It has almost nothing for preservation, including binding. It has nothing for research and development. We do not have our own computer. We now are purchasing the VTLS System. By not having our own computer, we have relied on the private sector a great deal.

AGRIS is very important to us. The AGRIS System is an international agricultural database with headquarters in Rome at Food and Agriculture Organization (FAO). It is built upon the premise that each nation should index and catalog its own publications. Each nation is supposed to index and catalog its own and send it to the central database at the FAO. We at the National Agricultural Library are responsible for the U.S. input, and our file makes up about half of the AGRIS file.

The AGRICOLA database is the U.S. portion. This is one of the major services that the Library provides. It has 2.65 million records made up chiefly of U.S. publications. We are reducing the number of foreign journals indexed, as we find they are covered elsewhere. It is for sale through the National Technical Information Service. Since we do not have our own computer, we use OCLC for our input. We have our own indexing input system. The indexing tape is merged with the OCLC tape for monographs and serials and is available through NTIS in machine-readable form. The tape is purchased by Oryx Press, which publishes from it the printed version of the *Bibliography of Agriculture*. It has also been purchased and put online by DIALOG, BRS, and DIMDI, as well as by Silver Platter and OCLC, who produce the AGRICOLA database on CD-ROM.

I would like to talk about cooperative cataloging. When you are short of money, you have to look for other creative ways to overcome the problem. In order to be able to provide a better quality database, many land grant universities help in the creation of our database. Forty-seven land grant libraries participate in a program whereby each state catalogs its own experiment station and extension publications, as well as some other unique publications. Last year, there were about 1,200 titles added to the database by other libraries, and we are profoundly grateful for that help.

One of our success stories that I believe will have great impact on all libraries relates to preserving and miniturarizing existing publications in digital form. Several years ago, we visited the Smithsonian and saw a system that not only created bit-mapped images, but also created the corresponding ASCII codes, thereby giving the ability to see a copy of the original document but making the text accessible word by word. To make a long story short, upon the advice of several land grant librarians, we agreed that we should start a cooperative project at NAL. Forty-four libraries are participating in this project, with each of them giving $3,000 a year for two years. The project provides wonderful potential for replacing microform. Not only can it provide fine quality images but it has the potential for improving access.

Some time ago, we acquired a large collection of food irradiation research reports. The research was done in the 1950s. These reports take up about 20 file cabinets. Nobody knows we have them, and, if they did, the collection is almost impossible to use. Not having the money to catalog them, our concern was how they could be cataloged by machine.

We are addressing published works and not new information, which one should capture in digital form at the time of publication. First, we make a bit-mapped image which is a facsimile of the page. You have the page as you see it—much like microform, only better. Next we run that bit-mapped image through an "ASCII-izer." A reading engine then pulls every word out of the bit-mapped image and puts it in ASCII. You now have, in digital form, a picture of the page as well as very word on the page in digital form. It is now mastered on a CD-ROM.

We have just released our first disk with 4,000 pages of aquaculture literature, and it is now being tested. Other disks will soon be available for testing among the participants. One will be CGIAR materials for all over the world. Another will contain a portion of the Agent Orange collection at NAL—another collection that nobody knows about. We are also going to produce a microfilm replacement prototype on food irradiation.

In addition, the University of Vermont will be making available on CD-ROM, using this same technology, acid rain material from Canada. They have secured copyright permission from the Canadian Government for this material, which by and large is not available in the U.S.

Addressing other uses of this technology, we have developed another project–the National Agricultural Image Transmission Project. Susan Nutter, Director of Libraries at North Carolina State University, and we are working on a cooperative project, funded by the Department of Agriculture through evaluation funds. It involves the sending of a bit-mapped image via the National Science Foundation computer from NAL to North Carolina State. This project has exciting possibilities and great potential for improving inter-library loan.

NAL has established 13 specialized information centers to provide enhanced services to its current clientele. We took this approach as a result of a blue-ribbon panel study on the library in 1983. A reference person is assigned to interact and network with all of you and the Department of Agriculture, to try to find out not only what is available, but what is needed in the field–being pro-active rather than reactive. We have expanded and are improving our reference service greatly.

I would like to mention briefly the United States Agriculture Information Network (USAIN). The blue-ribbon panel, mentioned earlier, which investigated NAL, recommended that there be an advisory panel to the Secretary of Agriculture, similar to the National Library of Medicine's Board of Regents. After six years of effort to get legislation to set up such a body, the Office of Management and Budget refused to allow it.

We started looking at alternative ways to get that kind of input. For several years, NAL has held meetings with the land grant libraries at the American Library Association meetings. In an effort to improve the dialogue, we decided to expand those meetings into a more formal forum, in which NAL was a player but not the leader. This could provide a forum for discussing agricultural policies and issues nationally. This organization is being set in place. There are officers, and I believe that they will be going out with a membership drive soon. It gives us opportunities to discuss what is needed in agriculture. It also provides a lobbying group that can seek Federal funding, either through our budget process or through other budgets.

NAL has a lot to do, and I have a list of many things that I would like to do. One of the things that concerns me is preservation. I feel guilty that I do not have any money for it. I would like to bring to your attention that the National Endowment for the Humanities is for the humanities. The National Endowment has been very nice about being able to include science if it is history, but there are other aspects of science that need preserving. The sciences need their own preservation program. We should not have to force everything into history in order to preserve it.

I am very envious of the National Library of Medicine for many reasons; one of which is that they once had funds for awarding collection strengthening grants. I would like to see a national program, funded through NAL, where we could help build up weak collections but also make strong collections stronger through a cooperative program. Also, I am envious of what NLM has now in the way of research grant money. They have a sizable amount in their budget to be used for research grants dealing with medical information. It would be nice if we could do the same.

PANEL DISCUSSION

Nancy Eaton, Iowa State University
Paula Kaufman, University of Tennessee
Paul Willis, University of Kentucky

MS. EATON: You mentioned that you have an information center on biotechnology, and we heard Dr. Lindberg talk about the National Center for Biotechnology Information at the National Medical Library. Many of us on our campuses are seeing a frenzy of activity in the biotechnology area, with millions of dollars going into it. And I forecast that we are going to have a hard time adjusting quickly to the expectations in that area, given our other problems with serials, etc. What role do you see for the National Agricultural Library in helping with that, and what interrelationship do you see between NAL and NLM?

MR. HOWARD. Thank you; that is a wonderful question. And I would like to just pay kudos to NLM again. NLM has $6.9 million for biotechnology. It is absolutely fabulous what they have been able to get. I am envious because I have received about $40,000. The Department of Agriculture is beginning to work on this. I have the final statement between NLM and NAL on collection development policy as to who will collect what in biotechnology. The Department of Agriculture is working on an initiative now and seeking money from the Congress in this year's budget to address the plant genome but not the animal side.

In that budget, if it passes, there is money for NAL. Biotechnology journals are tremendously expensive and we are making efforts to acquire as many as we can. For instance, working with the Food and Drug Administration (FDA), we get their biotechnology journals after about a year from publication date. Working with NLM, we are trying to make sure that our bibliographic databases are compatible.

In our budget there will also be funds to ensure that DNA sequences will be entered. We will be acting in a coordinating role.

MS. KAUFMAN: Joe, I believe your financial condition is probably not understated or overstated. That you are in need of more money seems obvious to most of us, if not to all of us. On the other hand, most of us, whether we are land grant institutions or not, find ourselves in a situation perhaps different from that of medical libraries, in that agriculture is a very small part of the overall umbrella of things in which we are interested.

You mentioned USAIN and when you talked about it, you mentioned that dirty word, lobbying. Could you comment on what we, as either land grant institutions or non-land grant institutions, can do to help NAL get more money and more resources?

MR. HOWARD: First of all, we would love to talk to anyone for advice as to what we need to be doing. We would like to hear from you as to what should be done. As to how to get an initiative into NAL's budget, you can come directly to us. Let me tell you what happens next.

Once NAL decides what to include, our request then goes to the Department of Agriculture. The Department so far has been very generous. They have not included all of NAL's requests but they have been fairly generous. What the Department allows then goes to the Office of Management and Budget. There you can imagine what happens. It gets cut. Next it goes to the Congress. Congress also has been fairly generous to NAL. So, it seems to me that you can lobby NAL, you can lobby the Secretary of Agriculture, you can lobby OMB, and also you can lobby Congress. It may mean that you need to lobby all of them.

A major organization, such as USAIN, may be what we need. The afore-mentioned government agencies are going to listen to USAIN more closely than they are to me. I believe that a powerful group can make some impact.

MR. WILLIS: I would like to return to your text-digitizing work. I am interested in knowing a little more about what you have learned from the text-digitizing project and what future possibilities you see for that technology, perhaps in getting some core collections out to developing countries or maybe strengthening the 1890 land grand collections that you suggested.

MR. HOWARD: First of all, I believe we have a real success in this. We have learned a lot. We have learned, first of all, that the creation of the bit-mapped image is successful and it is wonderful, if you have a high-resolution monitor. You also can get a wonderful printout from a laser printer. It is good as the original and sometimes better. But you do need a high-resolution monitor which costs about $16,000, though we are investigating lower priced models. On regular monitors you can see it on your screen but you just cannot read it–that is the reason a high-resolution monitor is very critical.

The creation of the ASCII, or, as I say, the "ASCII-izing" of the bit-mapped image, is very good if you have perfect copy going in. And, by the way, "perfect" is defined by the machine, not by you or me. So you can get good ASCII, if the equipment likes the print, the type font, etc. Running it through a WordPerfect spell-check, you can come up with something that is even better. For those publications such as the food irradiation collection, complete with coffee spills or places in which the ink bled from one letter to the other, it is unsatisfactory. I would say that on the food irradiation, we are lucky if we get 50 percent accuracy. On good source documents 99 percent or 100 percent accuracy can sometime be reached.

The retrieval software is expensive. It is a new field and we need to evaluate which ones meet our needs. I would say that we have learned that in the future we have the potential for the replacement of microforms. We are going to test this on a disk in the next six months. We must address the preservation of digital information. We ought to acquire and store digital information right now and make sure that the archival files of the ASCII are maintained.

It is very exciting and I hope that in another six months we will be able to show more progress. Ask me about it again in six months.

MS. EATON: I would add one other thing about the project. We are coming up with some much better guidelines on work station requirements to try to lower the cost with a more flexible work station, and also some guidelines on what materials are adequate or lend themselves to the bit-mapped image approach and which things lend themselves to the ASCII and sometimes in combination. It has been a very good experience.

There is an advisory panel made up of land grant librarians, and we will be meeting in November 1989 to review the progress so far and to decide what should be done next.

MS. KAUFMAN: I would like to get into the whole area of "free access, if possible, and, if not, as cheaply as possible." Could you comment on how you have been able to apply that principle to your operations and what you see in terms of what you are going to be able to do? What additional pressures do you see which will impact on your ability to meet this mission?

MR. HOWARD: For being able to provide information free, NAL does not have a very good record. For trying to keep the cost low, we are trying our damndest. First of all, we do not have our own computer. The VTLS System is up and running and doing beautifully. But we have not traditionally, like the Library of Congress and NLM, had the money to be able to develop our own system.

We have a very good record for using the private sector. By using OCLC we are able to create an AGRICOLA tape. It is available for sale very cheaply, basically for the cost of reproducing the tape plus a little overhead.

We try to make sure that every land grant gets a free copy of our publications and anybody else who requests it can have free copies, too. We do charge for interlibrary loan, and we charge for the cost of photocopying plus the cost of charging.

Let me give you an example of a dilemma that we have. The FAO gave us $30,000 to create REGIS, using full text with hyper-media along with an expert system. We went to Goucher College in Baltimore, and worked with some of their faculty. Between us, we created REGIS System, which is now for sale by NTIS. We planned to give every land grant institution a free copy. And we were going to sell other copies to the rest of the world so that we would have a small fund for improving it or creating another on a different subject. When it went out on floppy disks (it is not copyrighted), someone loaded it on a bulletin board and it is now available free. On one hand we are delighted, but on the other, we do not have any income to help revise it.

If NAL had had the money to create our own CD-ROM of the AGRICOLA data base funded by the Federal Government, it could have been free or available at low cost. Since we did not, the private sector produced it. Your cost includes a for-profit motive.

MR. WILLIS: I read about a project at Cornell that is to identify core literature and get that material on optical disk so it can be distributed to developing countries. Is NAL involved in that project? Do you see a role for NAL there?

MR. HOWARD: NAL gave Cornell a small grant to start producing one of the lists of the most important core literature. Cornell is providing the core lists but a new firm is going to master the full text on CD-ROM. These projects will be a help to all of us. There is a national agricultural library being developed in Egypt, and it would be of great help to them. I believe it is a wonderful program.

MS. EATON: I wonder if I could turn to staff development for a minute. One of the things that I have become aware of working in two land grant libraries, is how thinly staffed we are for agricultural subject areas. And I wonder what we could do in conjunction with NAL to gain subject expertise in some of these areas.

MR. HOWARD: If USAIN (or anybody else) can work with us on a national intern program we would be delighted. We do not have the money at the present but we could provide some staff time. This would be an appropriate networking initiative in our budget. We do have a base for networking. I believe that it would be appropriate also to work up a staff development program in the field of agriculture. It could be done at NAL in a cooperative way.

MS. KAUFMAN: Let me turn on another subject that you touched on, the contracting-out business, and ask if you could comment some more. We have all heard about that. Hackles were raised quite a long time ago, but the furor seems to have died down. Could you comment on what it means to you and how you cope with the requirements that you contract out?

MR. HOWARD: The Department of Agriculture has asked us every year what we are going to do about contracting out, and we respond with a statement as to what we are already doing. They have never questioned us further. Our position is that our professional positions are not contractable. We have contracts for several areas. We contract out the shelving of our materials and interlibrary loan. And, by the way, our interlibrary loan has improved over the last five years from 30-day turn-around time to 24 hours.

There is a problem here. We already have one contract that we have had to drop. When the contractors bid, they bid as low as possible to get the contract and it is cheaper than we can do it. But in a couple years, the prices begin escalating. As I said, we are already at the point where have had to drop one because we could not afford them any more.

One concern I have about contracting out is that contractors do not necessarily have to give annual or sick leave to those employees that they hire. The lower costs are in part at the expense of people who are willing to not receive benefits.

MRS. KAUFMAN: You are not feeling any pressures at the moment to contract out?

MR. HOWARD: No, we are not feeling pressures other than those areas where we volunteered, to keep the hounds at bay.

MR. WILLIS: I am not sure at what stage your VTLS catalog development stands, but would you envision offering remote access, perhaps to the land grand institutions, to your online catalog when it is at a stage that that can be offered?

MR. HOWARD: I wish you had not asked that. Let me beat around the bush and say that we now are testing it with a few remote institutions. The Agricultural Research Service has several libraries around the country. While we do not supervise these, we do advise them. They are all using it now as a test. One of the options would be perhaps to extend this to other libraries. But we have not addressed this in detail as yet.

Let me just say that while the VTLS System is going well, we have not yet totally implemented it. VTLS is building an indexing module for us. This is unique and will be very helpful to us and ultimately to you.

MS. EATON: Given your budget problems, particularly in acquisitions, do you get any benefit at all from copyright copies?

MR. HOWARD: The copyright copies go to the Library of Congress, and we get those they do not want. That is also the case for NLM. So we benefit if the materials are technical agricultural. The more popular materials we must purchase. I have discussed that with the Library of Congress, hoping that we might be able to get one copy. This is under sensitive discussion now.

MS. KAUFMAN: I understand that NAL has been doing some work on computer-aided instruction for catalogers. Could you tell us a little bit about that?

MR. HOWARD: I have a very fine staff. Sarah Thomas is one of these. She has gotten a grant from Apple Computers on Library Resources. With a committee of several experts from around the country, they are developing a computer aided instruction for cataloging of machine-readable records. They are taking the cataloging rules about machine-readable records and the rule interpretations and are developing a computer-aided instruction expert system-type product. It looks very promising. Keep your eye on it.

MR. WILLIS: Joe, you have not told us about your backlog problems yet or your retrospective conversion needs. Do those exist at NAL?

MR. HOWARD: Retrospective conversion is a major problem for us but we do not have backlogs by and large. While at LC, I pushed minimal level cataloging. At NAL we are doing a lot of it for some of the foreign materials. I figure something that is under minimal control is better than not under any control—even if it is imperfect. Our backlogs of traditional type materials are not large at all except in a few languages. Recently we had help to clear out our arrearage in Arabic.

We do have a need to index more. In other words, we do not have a backlog of indexing, but we have a need to index more journals.

All of our records since about 1970 are in machine-readable form. Most everything before that is not. We have a small retrospective conversion project and have made a little progress. But let me report on agriculture in general.

The University of Illinois with a Higher Education Act Title II-C grant has input many retrospective state agricultural publications into OCLC and AGRICOLA. It is a three-year grant and will help all of us a great deal. Cornell has cataloged their Chinese backlog with a grant, and those records have gone into the AGRICOLA data base. NAL has a small project with Optiram to input 10,000 records. We are waiting for the results. We also are using optical scanning in an effort to improve the AGRICOLA data base by adding abstracts.

MS. EATON: I wonder if I could pick up on your comments about using optical technology in place of microform, because there certainly are other views about that. Could you amplify on your views of that technology as being appropriate?

MR. HOWARD: As far as I know, the controversy is over the stability of the digitized information and how long it will last. I hope there is no complaint over the quality of the image, because it is beautiful.

I have been using microfilm lately, and I am with Barbara Tuchman, "microfilm is fine if it is the only thing you've got." My position is that I will build into the program the duplication of WORM by computer as often as necessary to preserve it. If it will last 50 years, I will duplicate it every 25. I am faced with the fact that my 14-story building is full and I have got to miniaturize as well as preserve. I would rather have the collection in digital form, which will provide better access and, in some instances, word-by-word access.

MS. KAUFMAN: Joe, as you know, I am fairly new to a land grant institution. Being a provincial New Yorker for many years, my view of agriculture was as you defined it earlier–farming. I have been very surprised to learn the scope of interests among those who study agriculture and am even more surprised to learn the range and scope of subjects covered by NAL. Could you give us all a feel for the scope of subjects that NAL does cover?

MR. HOWARD: We are interested in agriculture in the broadest sense–clothing, textiles, rural information, the social sciences as they relate to agriculture. Any topic related to rural information is covered by us, whether it be latchkey children, alcoholism, or drug use by youths. These are only examples. We do not consider, of the three national libraries, that is our national responsibility in many cases but it is our departmental responsibility. While we duplicate collections in some cases, we are very selective.

MR. WILLIS: In terms of responding to what we can do to help you, you mentioned the new organization, USAIN, which involves librarians. Do you have any program that involves the schools of agriculture, their deans, or their faculty? It seems to me that those people, along with the librarians, might be a useful group to get to try to help your program.

MR. HOWARD: Librarians are wonderful. We have a great cooperative network from the bottom to the top. Extension has a great network from the bottom to the top. But there is not much cross over. We must improve this and be able to talk with each other. NAL certainly needs to do more with the agriculture deans and Extension on your campuses. Pardon my saying so, but I feel that you should share part of the responsibility. The more that we can do together to help with communication on the campus the better off we all are.

On the national level, there is the National Association of State Universities and Land Grant Colleges (NASULGC), which has a committee on the library. It has been less than successful. We are now working with USAIN and NASULGC toward abolishing the NASULGC committee. Its chair will become part of the Board of USAIN, and in this way there will continue to be a channel to the deans. I feel very strongly that we in agriculture need that connection to NASULGC. When we want to be on the program of NASULGC, for instance, we will have the proper channel. I believe the future looks better than the past.

DISCUSSION

A MEMBER: Joe, you have a unique background from your experience at the Library of Congress. I am wondering if you could make some observations on the differences between working in the executive branch of government and the legislative branch of government, and anything else you care to say about the Library of Congress.

MR. HOWARD: There is a great deal of difference. While I was with the Library of Congress, I used to hear suggestions that legislation be passed making LC a national library. Whatever happens, I would strongly recommend that LC stay in the legislative branch. Being in the executive branch means oversight by OMB and going through OMB is not the greatest thrill on earth. LC's being able to take their budget directly to the congressional committee is a major advantage.

The Department of Agriculture has been, considering the political atmosphere, very nice to me and to the Library. But they do reflect the political atmosphere. I believe that libraries should be non-political. And as soon as you get into the executive branch, one becomes more subject to those dictums mentioned earlier. Sitting back and looking at the Library of Congress, I would love to be in their shoes, when it comes to the budget.

A MEMBER: You commented well in answer to Nancy's question about replacing microforms with CD-ROM and you very effectively answered the question about durability of that format. Clearly it is a more convenient format from the point of view of indexing and, therefore, accessibility to the information. It is worth adding, however, one other thing. It is a fallacy to suppose that microfilm will necessarily be permanent. I can tell you from personal experience that high temperatures will destroy microfilms completely.

What specific plans about replacing microforms do you have in the works?

MR. HOWARD: What I have in the way of ideas is not in the works yet. I do have a draft to send to USAIN to try to develop a national preservation program for agriculture using digital information. It is a project where I hope that we could get together and seek funds for preserving in digital form rather than microfilm. It is time for us to think of other alternatives to microform. We need to work out a pilot project to test and see what the problems and potential might be.

MS. NUTTER (*North Carolina State University*): I want to take the opportunity to expand on a couple of your points, Joe, and also answer some of the questions from the panel.

Paul asked the question about remote access to NAL's catalog. The fact that our joint project has now put you on the Internet provides that kind of opportunity. I believe that is something that we should help you support, because it would be a cost to you.

You also asked a question about assistance to the international community, particularly Third World countries. In this project, our first stage is proving the concept. We are testing the fact that we can actually scan items from NAL's collection and deliver them to people at North Carolina State University through the Internet. The second stage of the project is expanding that network to 12 land grant institutions. The third stage is a national operating level project. That is not a project any more. It will actually be an existing network that would include, as well, an international component. We have a number of partners already interested and ready to participate. However, the Internet has not yet reached them. We are hoping at that point that it will.

Another point that you had discussed was the involvement of the deans and the faculty. I believe that, again, this project is going to give NAL the capability to move toward serving the end user directly, in addition to the library-to-library link. Joe has graciously agreed to come down to North Carolina State and speak at the third annual I. T. Littleton Seminar. We are going to look at agricultural research and information needs in the 21st century. The Dean of Agriculture is the keynote speaker. Joe is going to talk about what NAL is doing. We have a biotechnology researcher who is going to talk about the needs of that community and how we might meet them. And then we are going to do a demonstration of all of the digitizing projects, as well as our own project on the Internet.

So I really do see that you are beginning to move into that arena. And this particular project will have work stations in the agricultural research areas on campus and they will be able to get material directly from NAL. It is going to be interesting.

MR. HOWARD: What you are doing is really exciting.

MS. NUTTER: You are doing it too, Joe.

MS. EATON: I wanted to amplify on that a bit. One of the committees in the new USAIN structure is a telecommunications committee. What they are interested in doing is trying to lay out a scheme for how NAL could work with other libraries in developing the network capabilities.

MR. HOWARD: Anything we can do together is better than if done separately. It is more fun that way, too.

A MEMBER: This is a technical question. Are the hardware and software for your full-text products on CD compatible with the hardware and software of other products that are coming out? To give you an example, we are an ADONIS test site. We are more likely to buy your full-text products on CD if we could play the disks on our ADONIS hardware.

MR. HOWARD: The hardware is off the shelf. The CD-ROM is commercially produced and I believe you can play it on any CD player, except the music ones.

MS. EATON: There are two different work stations involved. One is an ASCII-only work station, and all of that is off the shelf. The problem with the image work station is that it is laser data-based, which is a proprietary system. And I believe ADONIS is in fact a laser data system, so it may be compatible. What is coming out of this project is the establishment of standards in work station configurations so that we can start to go to a standardized bit-mapped image, as well. That may, in fact, be one of the most important things that evolves out of the project.

BUSINESS MEETING

BUSINESS MEETING

[President Charles E. Miller (*Florida State University*) convened the Business Meeting at 3:30 p.m. on Thursday, October 19, 1989, at the Hyatt Regency Hotel, Bethesda MD]

ANNOUNCEMENT OF ELECTION OF VICE PRESIDENT/PRESIDENT-ELECT

Mr. Miller announced the election of **Marilyn Sharrow** (*University of California, Davis*) as the Vice-President/President-Elect for 1989-90.

REPORT ON THE OCTOBER 1989 BOARD OF DIRECTORS MEETING

Mr. Miller reported on the Board's deliberations concerning the Library of Congress proposal to license the MARC database. The Board met with **Henriette Avram** of the Library of Congress for a thorough discussion of the background, process, intentions, status, and future direction of LC's proposal. The Board welcomed LC's decision to postpone action on implementation of the licensing agreement and to consider other options. [See p. 77 for further action on the LC licensing proposal.]

The Board has scheduled a round table discussion for the May 1990 meeting, to focus on international issues, including developing an international strategy for ARL.

The Board has appointed a working group to discuss the concerns of Canadian members. The group comprises **Ellen Hoffmann** (*York University*), **Eric Ormsby** (*McGill University*) and **Kenneth Peterson** (*Southern Illinois University*). The group will present a report and recommendations to the Board at its meeting on Friday, October 20.

CONSIDERATION OF 1990 DUES

President Miller opened the discussion of the proposed 1990 dues increase, from $7000 to $8440, by citing three purposes for the increase:

- to continue current programs, based on an estimated operating increase of five percent;
- to respond to the mandate from membership to expand the serials initiative and to implement the resolutions voted on by the membership at the May 1989 meeting; as well as to build in the flexibility to respond to an evolving focus relating to a number of current ARL capabilities and issues. This initiative, the ARL Office of Scientific and Academic Publishing, would cost $100,000; and
- to build an operating reserve of approximately $800,000 over the next five to six years.

Mr. Miller reviewed the ARL planning process and the various activities which formed the foundation, or building blocks, of the present dues recommendation. The five building blocks are

1. the work of the Task Force on Responsiveness to Membership Needs, which produced a series of recommendations to ensure that Association activities are relevant to member library needs and based on membership involvement and commitment to purpose;
2. the creation of a new vision statement for the Association, which was reviewed by the membership and approved by the Board of Directors in February 1988;
3. the report of the Task Force on Review of the ARL Five-Year Plan, which was presented to the membership in May 1989;
4. the principles developed by the Task Force on Financial Strategies, which were approved by the membership in May 1989; and
5. the selection of Duane Webster to be ARL's Executive Director.

Discussion by membership focused on several issues, including what the Association could accomplish with a smaller dues increase, i.e., reducing the proposed dues by 5%, and renewed comment on the importance of supporting the serials effort.

The motion to increase the Association dues for 1990 to $8440 was passed unanimously.

ELECTION OF NEW BOARD MEMBERS

Martin Runkle (*University of Chicago*) presented the report of the Nominating Committee. Three candidates were presented for election to three-year terms on the ARL Board of Directors: **Harold Billings** (*University of Texas*), **Arthur Curley** (*Boston Public Library*) and **Susan Nutter** (*North Carolina State University*). The candidates were elected by acclamation.

REPORT OF THE ARL EXECUTIVE DIRECTOR

Mr. Miller introduced **Duane Webster,** Executive Director, who presented a report on activities since the last Membership Meeting. Mr. Webster called attention to several items which had been distributed to members prior to the meeting, including a report on ARL programs and activities since May 1989, a status report on the LC licensing proposal, an update on the serials project (ARL's new Office of Scientific and Academic Publishing), a report on the Paperwork Reduction Act, and a Federal Relations report summarizing the current status of legislation of interest to members. [See Appendices B-E for these documents.]

Mr. Webster also reported on recent staff changes. **Margaret McConnell** left ARL in August. **Linda Hilliard** joined the Association as executive assistant and meeting planner. **Jaia Barrett**, ARL's Assistant Executive Director, is taking administrative leave for two years. Ms. Barrett was saluted for her significant contributions to the ARL Staff. **Prudence Adler** has been appointed Federal Relations Officer. Mr. Webster also announced that ARL Program Officer **Nicola Daval** will leave the Association in early 1991. **James Govan** (*University of North Carolina*) presented a brief tribute to Ms. Daval, who has played a key role in the ARL Statistics Program, communications and publications, and meeting planning over her long tenure at the

Association. Mr. Webster closed with a request for the membership's assistance with the Association's current staff recruitment efforts.

REPORT OF THE COLLECTION DEVELOPMENT COMMITTEE

Paul Mosher (*University of Pennsylvania*), speaking for the Collection Development Committee at the request of the chair, Susan Nutter, noted that while the activities of ARL with regard to the serials pricing issue has resulted in some amelioration in this area, it appears to have also resulted in several ARL members being sued for their efforts one behalf of serials pricing issues. Thus, the committee agreed to present a resolution encouraging free and open debate concerning the serials price issue. The resolution read:

> RESOLVED, that the ARL encourages free and open debate of the serials price issue among all interested parties in the scholarly community, and decries attempts of a very few publishers to suppress this open discussion.

After a short discussion, the resolution passed unanimously.

REPORT OF THE GOVERNMENT POLICIES COMMITTEE: LC LICENSING PROPOSAL

Merrily Taylor (*Brown University*) reported that the Government Policies Committee had discussed the proposal by the Library of Congress to license the MARC data base and had prepared the following resolution for consideration by the ARL membership.

> In discussions of the Library of Congress's plans to license the use of MARC Distribution Service records, the Government Policies Committee received with pleasure the news of the decision to delay implementation of the proposal. The committee was also pleased to learn that the Library of Congress is willing to work with ARL in re-evaluating the options available for assuring the continued viability of these valuable distribution services. The committee discussed the complex questions raised by the license proposal and after lengthy deliberations concluded that it is important that ARL membership go on record in support of the following points:
>
> 1. ARL reaffirms its commitment to a set of principles on government information in electronic format adopted by the membership in May 1988. The six principles are:
>
>   - The open exchange of public information should be protected.
>   - Federal policy should support the integrity and preservation of government electronic databases.
>   - Copyright should not be applied to U.S. Government information.

- Diversity of sources of access to U.S. Government information is in the public interest and entrepreneurship should be encouraged.
- Government information should be available at low cost.
- A system to provide equitable information is a requirement of a democratic society.

In accordance with these principles, ARL strongly opposes any action by the Library of Congress that has the effect of placing restrictions or establishing copyright-like control over the domestic use of government-produced databases or other information produced at taxpayer expense. Furthermore, ARL reasserts that government information is a public asset, to be made widely available at reasonable cost to all users and not a commodity that is to be sold for profit by the U.S. Government.

2. ARL acknowledges that the Library of Congress has the authority to license MARC records outside the United States and understands the Library of Congress's concerns about the use of MARC records by other national libraries. However, ARL believes that licensing use of the MARC records abroad is not in the best interests of international scholarship and therefore urges LC to address these concerns, instead, by pursuing other tactics, such as promoting reciprocal arrangements for the exchange of databases.

3. ARL libraries reiterate their readiness to participate with the Library of Congress in cooperative cataloging and other efforts to increase accessibility of the nation's research materials and urges the Library of Congress to initiate plans for a program in the tradition of previously successful models, such as CONSER, NACO, and National Coordinated Cataloging Project.

4. ARL has always regarded the Library of Congress as a key partner in the provision and support of scholarly information and has therefore been a consistent and strong advocate for the Library of Congress's programs and budget requests. We fervently wish this partnership to continue. We therefore urge the Library of Congress to actively pursue with the Association of Research Libraries options for assuring the continued viability of these valuable distribution services.

Substantial discussion followed, which included the following points:

- the need to make ARL's position on this issue clear;
- the international impact of the LC proposal, and what, if any, action ARL should take to lessen the impact on non-U.S. libraries;
- that access to government-produced information needs to be improved;

- that libraries have contributed records to the MARC database, and some recognition of that fact be reflected in the resolution under consideration;
- the need for an open forum to discuss the licensing issue, and a discussion of LC's plans for communication with ARL and other library groups; and
- a call for recognition of a larger philosophical issue beyond licensing–the relationship of the research library community to the Library of Congress.

In light of the discussion, **Joseph Boissé** (*University of California, Santa Barbara*) offered a substitute motion that rather than voting on the resolution as presented by the committee, the membership instruct the Board to prepare a resolution based on the committee's resolution and the discussion by members. Ms. Taylor accepted the substitute motion and its was seconded. In response to member questions, it was decided that the working group of Canadian concerns would provide input to the Board on relevant portions of the statement, and that the Collection Development Committee does recognize LC's right to recover costs plus ten percent on their products. The motion to direct the Board to prepare a statement passed with two abstentions.

In response to further questions about the course of ARL action, President Miller assured the membership that the Board will aggressively pursue and reflect the Association's interests, and work toward a true dialogue with the Library of Congress.

[See Appendix A for the statement adopted by the Board on October 20, 1989.]

PRESIDENT'S REPORT

In the interest of time, a President's report was not presented.

CHANGE OF OFFICERS

Mr. Miller thanked the Board and staff of the Association for their hard work during his presidency. He then turned over the gavel to Vice President/President-Elect **Martin Runkle**.

Mr. Runkle thanked Mr. Miller for his effective leadership as President, and acknowledged **Elaine Sloan** (*Columbia University*) who is leaving the Board after her year as Past President, as well as **Merrily Taylor** (*Brown University*), and **David Bishop** (*University of Illinois*) who have completed their terms.

APPENDICES

APPENDIX A

ARL STATEMENT ON LC LICENSING AGREEMENT

Research libraries through international, cooperative systems of shared bibliographic records and collaborative efforts in developing and preserving collections have collectively built an information infrastructure that supports and enhances scholars' access to vast but geographically distributed research resources.

The continuing effectiveness of the information infrastructure depends on the strong working relationships among research libraries, including the Library of Congress, as well as on balancing the interests of the individual institutions against collective goals.

The recent action by the Library of Congress to license the use of MARC Distribution Service records undermines the implicit agreement among research libraries and threatens the delicate balance of mutual interdependency.

Therefore, ARL members welcome LC's decision to delay implementation of the licensing agreement. ARL is pleased to learn that LC is willing to work with ARL in "reevaluating the options available for assuring the continued viability of these valuable distribution services."

It is the sense of the ARL membership that:

1. ARL reaffirms its commitment to the six principles for government information in electronic format adopted by the membership in May 1988.

   These principles are:

   - The open exchange of public information should be protected.
   - Federal policy should support the integrity and preservation of government electronic databases.
   - Copyright should not be applied to U.S. government information.
   - Diversity of sources of access to U.S. government information is in the public interest and entrepreneurship should be encouraged.
   - Government information should be available at low cost.
   - A system to provide equitable, no-fee access to basic public information is a requirement of a democratic society.

(continued)

In accordance with these principles, ARL strongly opposes any action by LC that has the effect of creating impediments to or placing inappropriate restrictions on government-produced databases or other information produced at taxpayer expense. Furthermore, ARL reasserts that government information is a public asset to be made widely available to all users. It is not a commodity that is to be sold for profit by the United States government.

2. ARL believes that licensing use of the MARC records is not in the best interests of international scholarship. Therefore ARL urges LC to pursue reciprocal arrangements with other national libraries. ARL is particularly concerned about maintaining the historically strong cooperation among research libraries in the United States and Canada.

3. ARL regards LC as a key partner in the provision and support of scholarly information and has been a consistent and strong advocate for LC programs and budget requests. Research libraries and the Library of Congress have forged effective coalitions for cooperative cataloging, collecting, and preservation activities. ARL libraries continue their commitment to participate with LC in cooperative efforts to increase accessibility of research materials. We urge LC to work with ARL to assure the continued viability of these valuable programs.

The **ARL Statement on LC Licensing Proposal** was adopted by the ARL Board of Directors, on behalf of the ARL Membership, on October 20, 1989.

APPENDIX B

Report on Association Activities

May 1989 - October 1989

Summary

Recent Association efforts focused on the serials pricing issues, the role of the OMB and GPO in government information dissemination, program changes underway at the Library of Congress, relations with the scholarly and higher education community, and completing the ARL planning review. Staff changes are prompting a major national recruitment process.

Highlights of ARL program activities since the May membership meeting include:

- 1988-89 ARL Statistics and ARL Annual Salary Survey data analyses underway and proceeding on schedule, p. 1
- Andrew W. Mellon Foundation funds statistics project, p. 1
- ARL Committee on Preservation completed analysis of preservation statistics collected in fall 1988, and publication issued in June, p. 1
- The new ARL logo introduced, projecting a new image for the Association, p. 2
- ARL positions and policies highlighted in the press, p. 2
- Successful May ARL Membership meeting in Providence, RI, attended by 103 institution representatives, p. 2
- ARL working group on Canadian membership issues established, p. 3
- ARL Task Force on Telecommunications established, p. 3
- ARL Planning Process moved to conclusion with adoption of new mission statement, p. 3
- Office of Management Services awarded NEH grant in support of preservation planning for research libraries, p. 5

- Office of Management Services introduced new Creativity and Analytical Skills Institute, p. 7
- ARL an active participant in congressional reauthorization of the Paperwork Reduction Act, p. 9
- Ongoing review of Library of Congress MAP and reorganization, pp. 10 & 11
- H. W. Wilson grant to support a review of Title II-C, p. 10
- ARL liaisons with scholarly groups, p. 10
- New contractor selected for National Register of Microform Masters (NRMM) Recon Project, p. 11
- The establishment of the Office of Scientific and Academic Publishing approved by the ARL Board to address recommendations in the serials prices project, p. 11
- ARL active at August IFLA meeting in Paris, p. 12
- 1990 budget and dues proposal, p. 12
- Recruitment effort to secure three ARL staff underway, p. 13
- Nine Visiting Program Officers working on ARL projects, p. 13

There were several significant personnel developments at ARL during this period. Jaia Barrett, Assistant Executive Director, will take a two-year leave of absence to join her husband in West Germany. Nicola Daval will leave ARL at the end of the year to pursue a theatrical career. Recruitment efforts are underway.

The challenges facing the Association in 1990 are: building financial stability; extending opportunities for member involvement in addressing issues, strengthening Association influence and role in larger environment of higher education and scholarly communication, and maintaining the array of services provided to members. Major issues on the agenda for ARL include establishment of the Office of Scientific and Academic Publishing, monitoring the development of a national research and education network, influencing government information policies, promoting publishers' use of permanent paper, and strengthening ARL statistics.

I. Statistics Program

ARL Statistics. Questionnaires for the 1988-89 *ARL Statistics* were sent to the membership in early August. The deadline for return of the questionnaires was October 6 and analysis will take place between now and December 15. Preliminary tables will be distributed on December 1; publication date for the 1988-89 *Statistics* is January 31, 1989.

In May, the Committee on ARL Statistics distributed a report to the membership entitled, "Future Trends of the ARL Statistics." Several recent activities of the ARL Statistics Program have resulted from the report. First, a supplementary statistics questionnaire was distributed this year along with the regular questionnaire. The supplement requests data on additional formats of material (e.g., audiovisual, maps, etc.), government documents, and local online catalogs. It is anticipated that in two to three years, these data elements can be incorporated into the regular statistics. Analysis of the data will be carried out in early 1990.

Second, a proposal for a multi-part program was developed and has been funded with $65,000 from the Andrew W. Mellon Foundation. The program will cover several projects, including: final preparation of historical data for ARL libraries in machine-readable form; plans for making the statistical data available in machine-readable form on an annual basis; exploration of mechanisms to allow law and medical data to be disaggregated from the ARL data as a whole, allowing more comparisons of "general" library data; and two major studies to be conducted by ARL Visiting Program Officers--one on library expenditures and university G&E figures, and the other on access and performance measures.

Salary Survey. Most of ARL university library members have taken advantage of the option of reporting their data in machine-readable form. This will enable editing and processing of the data to be completed more rapidly than in the past. Deadline for return of the survey was August 31, 1989. Preliminary tables will be distributed by November 1; publication date for the 1989 *Salary Survey* is December 31, 1989.

Preservation Statistics. The ARL Committee on Preservation completed analysis of the 1987-88 preservation statistics collected in the fall 1988. The publication was issued in June. A survey requesting the 1988-89 data was distributed in July, and a publication date of March 31, 1990 has been established for the 1988-89 ARL *Preservation Statistics.*

II. Communications Program

Newsletter. Issues 146 and 147 of the *ARL Newsletter* were published in July and September. A new name for the Newsletter will be finalized by November 6 and a proposed format adopted.

Minutes of the Meeting. The Minutes of the May 1988 meeting were published April 1989. The papers from the September ARL/SCONUL joint meeting in York, England, were published in August 1989. A marketing campaign, designed to advertise and expand sales of the *Minutes of the Meeting*, as well as other ARL publications, is being developed.

ARL Graphic Image. Last spring, the new ARL logo was introduced with the goal of projecting a new and positive image for the Association. The logo is part of an ongoing project to fine-tune ARL's message and presentation to the community. Response to the logo has been positive.

Relations with the Press. In the past eight months, ARL positions and policies on selected issues, including serials pricing, permanent paper, and government information policies, have been highlighted not only in a number of national newspapers but also in library and information science journals. Press coverage includes the *New York Times, Los Angeles Times, Virginia News Leader, American Libraries, Library Journal, The Scientist, Science, Federal Data Report, Federal Computer Week, Daily Report for Executives, Congressional Record, New York Law Journal,* and *PC Computing.* A portfolio of clippings will be distributed at the ARL meeting in Bethesda. Members are requested to alert ARL staff to press reports in local papers.

III. ARL Membership Meetings

May 1989. The 114th ARL Membership Meeting, hosted by Brown University, was held in Providence, Rhode Island, May 10-12, 1989. The program for the meeting was "Technology and the Future of Scholarly Exchange." One hundred forty institutions were represented at the meeting with 103 directors in attendance. Over 90% of the members' responses ranked the meeting from good to excellent. Responses noted that the meeting in general was well planned and executed. The one part of the meeting that generated criticism was the large number of verbal reports made by non-ARL agencies during the business meeting.

October 1989. The 115th ARL Membership Meeting will be held in Bethesda, Maryland, October 18-20, 1989. The program for the meeting will focus on the three U.S. National Libraries and how they address a number of issues, including: new roles or services envisioned for the institutions; enhancing access by the U.S. research community to foreign information products and services; dissemination of U.S. government information; and licensing as a mechanism to control secondary uses of information products or services developed by these libraries. A new feature of the meeting will be an optional luncheon session sponsored by the Government Policies Committee providing an update on a series of federal relations issues.

Future Membership Meetings. Plans are underway for future meetings in New Orleans, May 1990; Washington, DC, October 1990; and Montreal, May 1991.

IV. Governance

Membership Committees. The final report of the 1988 ad hoc Membership Committee went to the Board at its May 1989 Meeting and its recommendations on procedures for evaluating potential members were approved.

Membership Committee on Non-university Libraries. The preliminary report to the Board was presented in May, and the final report will be presented to the Board before the end of the year.

Working Group on Canadian Libraries. This working group was established to examine the issues relating to Canadian ARL members. The group is especially concerned with the impact of increased ARL dues and the difference in benefits for members not involved directly with the U.S. federal relations program.

Task Force on Telecommunications. The Board established an ARL Task Force on Telecommunications in July. Members include: Nancy Cline, Chair, John Black, D. Kaye Gapen, Malcolm Getz, Paul Gherman, and James Williams II. The initial meeting is planned for October 1989. The work of the group is aimed at examining and evaluating the implication of the development of a National Research and Education Network for research libraries.

The ARL Planning Process moved to conclusion. A positive reception was generated from the ARL membership concerning reports of the Task Force on Review of the Five Year Plan and the Task Force on Financial Strategies. The ARL Membership adopted a new mission statement and a list of guiding principles for long-term financial management. At its July 1989 meeting, the Board also reviewed ARL continuing objectives and agreed to the addition of a new objective in technology and significant alteration of the others.

Status reports on standing committee activities follow:

Committee on Government Policies:
Chair, Merrily Taylor; Staff, Jaia Barrett, Prue Adler
1989 Agenda of issues: U.S. government information policies, reauthorization of HEA, and library licensing of databases.

Committee on the Management of Research Library Resources:
Chair, Sul Lee; Staff, Jeffrey Gardner, Susan Jurow
1989 Agenda of issues: design of a strategy for future office services, review of training needs of research libraries, and consideration of library education initiatives.

Committee on ARL Statistics:
Chair, Tom Shaughnessy; Staff, Nicola Daval
1989 Agenda of issues: collecting and displaying comparable data on government documents collections, guidelines for dealing with material in shared storage facilities, and developing access measures.

ARL Committee on Bibliographic Control:
Chair, Dorothy Gregor; staff, Jutta Reed-Scott
1989 Agenda of issues: supporting and monitoring the efforts of the Library of Congress to address issues in the area of bibliographic control; completion of guidelines for bibliographic records for preservation microfilm masters (serials); and monitoring the National Coordinated Cataloging Project.

ARL Committee on Collection Development:
Chair, Susan Nutter; Staff, Jeffrey Gardner
1989 Agenda of issues; follow up on serials prices project, operation of the NCIP, ARL role in the issue of foreign acquisitions, and strategy for examination of the larger question of the future of scholarly communication.

ARL Committee on Preservation of Research Library Materials:
Chair, Carole Moore; staff, Jutta Reed-Scott
1989 Agenda of issues: promoting publisher use of permanent paper; supporting and advancing the development of a North American strategy for preservation; analysis of 1988-89 preservation statistics; development of descriptive models for varying levels of preservation program development; and continuation of retrospective conversion of reports in the National Register of Microform Master (NRMM).

V. Management Services (Office of Management Services (OMS))

A. **Research and Development Program** (Activities aimed at developing funding proposals and new OMS services or supporting study of special issues)

NEH Project. The National Endowment for Humanities awarded a grant of $146,000 to the Office in September 1988 in support of preservation planning research libraries. The grant supports the participation of ten ARL member libraries in the Office's Preservation Planning Program (PPP), the training of preservation specialists to serve as consultants on the PPP, and a formal evaluation of the PPP by Margaret Child. The ten libraries selected to participate in the PPP are: University of Arizona, Boston Public Library, University of Colorado, University of Delaware, Duke University, University of Georgia, University of Kentucky, Oklahoma State University, Purdue University, and Syracuse University. All ten participants will complete their projects between fall 1989 and fall 1991. OMS staff designed and carried out a six-day consulting skills workshop for sixteen preservation specialists in March and the initial assignments of the consultants to PPP participants has been made. The workshop emphasized the analytical and interpersonal skills required to work with the library study teams and task forces in working through comprehensive self-studies. The workshop also included coverage of issues related to serving as a preservation consultant within the participants' home institutions.

Membership Survey. The Office is working with the ARL Committee on the Management of Research Libraries in developing a survey to help plan Office priorities for the 1990s. The survey is scheduled for distribution in October.

Inhouse Training Program. OMS staff continue their work with the National Library of Canada in the development of an Inhouse Training Program. Current efforts are directed toward identifying ways to create an internal, entrepreneurial training program that will be financially self-sufficient within three to five years.

The North American Collections Inventory Project (NCIP). NCIP is operating on a cost recovery basis. Current efforts are directed toward ensuring ongoing project participation by libraries that have begun Conspectus evaluations as well as providing training, resources, and project documentation to new participants. The work of worksheet development and revisions continues and the OMS continues its cooperative efforts with RLG in those activities. In addition, OMS is coordinating non-RLG ARL libraries Conspectus data entry into the Conspectus online.

Future activities in the project include maintaining basic NCIP support services for current and new participants, continuing NCIP NEWS and the NCIP Users' Group, distributing the microcomputer-based Conspectus system being developed at the University of North Carolina to participants, considering possible demonstration projects utilizing the Conspectus for cooperative activities in the areas of collection development and preservation, and considering the ramifications of increased use of the Conspectus internationally.

Video Loan Program. OMS launched a video loan program in response to expressions of interest from personnel and staff development officers in ARL libraries. The program is a vehicle for libraries to have access to management videos of interest to them at a cost savings. Our goal is to acquire at least one copy of those videos most needed by subscribers. Currently, there are 11 videos in the library and 25 subscribers. Most libraries screen the videos during brown bag lunch seminars.

After paying the initial start-up fee ($350 for ARL Members, $410 for non-members) libraries pay $15/video to cover the cost of postage and handling. Libraries also pay a $100 renewal fee ($120, non-ARL members) each year. The program is on a cost recovery basis with income to be used to purchase new videos or additional copies of popular titles.

ARL/OMS Conference Showcase Booths. The June 1989 Library Showcase at the ALA Annual Conference in Dallas was a success. The theme of this year's exhibit was "Innovation Achieved by Research Libraries." Three multi-media exhibits were presented. Programs exhibited included:

> *Washington State University's* NEH funded Core Curriculum Project, which links a one-of-a-kind World Civilizations Course, English Composition, Library Research Skills, and library media;
>
> *Iowa State University's* celebration of the 100th anniversary of Bibliographic Instruction. The exhibit included 15 editions of the Library Instruction Manual, sample quizzes, video tapes used in instruction, and educational objectives for the program; and,
>
> *The University of Illinois at Chicago's* campus-wide electronic network. The system was accessed in real time through dial access and was available at the Showcase for hands on use.

B. **Academic Library Program** (activities related to conducting institutional studies and consultations at ARL member libraries).

During this period, several projects were in various stages of operation:

- Preservation Planning Program Studies: University of Florida; National Agricultural Library Special Consultation; SUNY-Buffalo; University of Southern California; University of Delaware; Duke University; Oklahoma State University; Syracuse University.

- Public Services Studies: University of Pittsburgh
- Collection Analysis Project: Wake Forest University
- Leadership Development Programs: University of Cincinnati; Purdue University
- Organizational Diagnosis: University of Toronto

C. Systems and Procedures Exchange Center

QUICK-SPEC Surveys Completed. Four QUICK-SPEC surveys were requested on the following topics: (1) As part of a larger study, an ARL member requested a survey to determine how ARL libraries are organized to carry out collection development responsibilities; (2) The U.S. General Accounting Office conducted a survey to evaluate federal agencies' information dissemination programs; (3) A member requested a survey on circulation policies; and, (4) Library personnel issues were the focus of the final QUICK-SPEC survey. Tallys of the surveys are sent to all libraries responding to the survey. Other interested ARL members can request copies for a minimal charge.

SPEC Kits Completed. The following SPEC Kits have been completed and mailed to subscribers: Use of Management Statistics; Computerized Online Bibliographic Searching in ARL Libraries; Onsite Access to Library Collections by Visiting Scholars; Automated Authority Control in ARL Libraries.

Other SPEC Publications Completed. Interlibrary Loan in Academic and Research Libraries: Workload and Staffing (OP-15) was published in August as part of the Occasional Paper series. The paper, authored by Pat Weaver-Meyers, Shelly Clement, and Carolyn Mahin, all of the University of Oklahoma, is based on a spring 1988 survey of ARL member libraries. It provides an overview of interlibrary loan staffing patterns and correlations suggesting that the importance of professionals in interlibrary loan may be underestimated. It also includes a self-analysis workform.

Upcoming SPEC Kits. SPEC Kit Topics: Remote Storage; Environmental Conditions; CD-ROM; Artificial Intelligence/Expert Systems; User Fees/Services; Travel Funding Policies; Affirmative Action Policies; Minority Recruitment.

Other Upcoming SPEC Publications: Alternative Strategies for Strengthening the Library's Fundraising and Development Capability; and the 1989 Automation Inventory of Research Libraries.

List of Liaisons Available. SPEC has created a list of SPEC Liaisons located at ARL libraries which includes their telephone numbers, ALANET electronic mail numbers, and FAX numbers.

D. Training and Staff Development Program

Creativity and Analytical Skills Institute. Two previously separate programs, the Creativity to Innovation Workshop and the Analytical Skills Institute, were combined for a sponsored workshop in August. The OMS is now prepared to offer the combination of the programs to other libraries. It includes the field visit experience of the Analytical Skills Institute and practice with the creative insight sessions of the Creativity to Innovation Workshop.

Institute for Assistant/Associate Directors in ARL Libraries. This Institute, presented September 26-29, took a look at creative problem-solving, shaping organizational culture, teambuilding, and the effective use of groups in our organizations.

Resource Management Institute. This program on financial skills for librarians, scheduled for December, has been rescheduled for February 12-16, in Washington, DC.

During this period, the following training events were conducted:

Basic Management Skills Institutes:
May 16-19, Minneapolis, MN
June 12-15, Knoxville, TN

Creativity to Innovation Workshops:
September 11-14, Gainesville, FL
September 20-22, Ottawa, ON

Special Focus Workshops:
May 15-23, Library of Congress, Teambuilding
June 15-16, New York, NY, Creativity
June 19-20, New Brunswick, NJ, Creativity

Creativity and Analytical Skills Workshop
July 24-28, Boston, MA

Scheduled programs remaining in 1989 include:

Basic Management Skills Institute:
October 3-6, Baltimore, MD

Basic Management Skills Institute for Depository Librarians:
October 21-24, Washington, DC

Advanced Management Skills Institute:
October 29-Nov. 3, Denver, CO

Creativity to Innovation Workshop:
November 8-10, New Orleans, LA

VI. Federal Relations and Information Policy Development

Activities and Major Issues. Activities during this period advocated the following ARL positions:

> Support for: the free expression of ideas; provisions in the Paperwork Reduction Act to contain OMB's authority vis-a-vis information dissemination activities of federal agencies and also to bring support for the role of the private sector into balance; legislative changes that would strengthen GPO's role in electronic dissemination of government information; reauthorization of LSCA; a national policy on permanent paper; and, reconciliation of two important goals of government use of permanent paper for publications of enduring value and increased agency use of recycled paper.
>
> Opposition to: any diminution of the authority of the legislative branch for government information dissemination; an operational role for OMB in information resources management; a Memorandum of Understanding between the National Security Agency and the National Institutes of Standards and Technology to implement the Computer Security Act; any amendments to HEA or LSCA that would require state agency comment on all grant applications.

Defining OMB's and GPO's Roles in Government Information Dissemination. ARL has been an active participant in congressional reauthorization of the Paperwork Reduction Act, OMB's statutory authority for IRM activities, and in a review of other chapters of Title 44 concerning GPO and the Depository Library Program. Kaye Gapen represented ARL in three hearings on this topic during May and June. In August, ARL joined with ALA, SLA, and AALL in sponsoring a joint witness, Anne Diamond, Library of Michigan, to testify about the library community position on OMB as the House Government Operations Committee considered the Paperwork Reduction Act. In addition, Sandy Peterson, ARL Visiting Program Officer from Yale University, Jaia Barrett, and Prue Adler have collaborated with other library and public interest community representatives in participating in congressional committee meetings and commenting on at last count, fourteen draft bills.

In July, ARL responded to a request from NCLIS to file a statement on the 1988 Office of Technology Assessment report, *Informing the Nation.* In August, ARL filed a letter with OMB commenting on that agency's "Second Advance Notice of Further Policy Development on Dissemination of Information" (54 FR 25554-9). Both letters underscored ARL's finding that public access to government information has been diminished by past OMB policies and that congressional action is needed to affirm the government's obligation to disseminate information. The intense interest of Congress is expected to continue into the fall.

On a related matter, ARL commented in September on a Commerce Department proposal for a new database, the National Trade Data Bank (NTDB), mandated by the 1988 Trade Bill. The NTDB is viewed as an opportunity to develop a model dissemination program with multi-tiered delivery options. The ARL letter supported the proposal and stressed the importance of public access provisions of the plan.

Library of Congress Transitions Plans. In July, ARL developed a summary of two of the transitions reports issued by the Library: Collections Services and Constituent Services. With the assistance of all ARL committee members, ARL prepared and submitted comments to James Billington on the themes that emerged from these plans.

Other Activities. Tactics employed included testimony before congressional committees, written response to committee questions, visits to congressional staff, ARL staff letters and calls, and reliance on ARL Visiting Program Officers. ARL activity in conjunction with other organizations, within and outside the library community, has been extensive during this period, particularly in the context of the PRA review.

Testimony was presented by Miriam Drake (joint witness with ALA on Computer Security Act), Kaye Gapen (on GPO, OMB, Depository Libraries, and federal information policies in general), and Anne Diamond, Library of Michigan (joint witness with ALA, SLA, AALL, on PRA).

The Government Policies Committee met in May to review major issues affecting research libraries. One result of the meeting was committee adoption of a statement, subsequently endorsed by the ARL Board, on the Right to Freedom of Opinion and Expression of Ideas, and ARL support for Article 19 of the International Declaration of Human Rights.

The H. W. Wilson Foundation awarded ARL a grant of $4,600.00 in support of a project to review the results of the first decade of the HEA II-C program. The study is underway by Samuel A. Streit, Assistant University Librarian for Special Collections, Brown University. Mr. Streit is working with a project advisory committee consisting of Joanne Harrar, Roger Hanson, Barbara von Wahlde, and Merrily Taylor.

Other ARL activities included: speaking with federal agency and congressional staff about the pricing of foreign journals; a status report to members on a CCC model photocopy license; consultation with congressional staff on the biodegradability of permanent paper; and, participation in higher education coalition making a preliminary assessment of HEA programs in anticipation of 1991 reauthorization. The ARL office also notified members of requests for information from the General Accounting Office about federal information programs, and from the ALA Washington office about the costs associated with serving as a depository library.

VII. Relations with Scholarly Community

Activities during this period included ARL Executive Director participation in the National Humanities Alliance and participation in two meetings of the NHA board of directors. The Executive Director also was invited to join the CLR grants review committee which meets monthly. The continuing working relationship with the American Council of Learned Societies and the American Association of Universities was maintained and meetings were held with the American Association for the Advancement of Science (AAAS), Institute of Electrical Electronics Engineers (IEEE), and the American Institute of Physics.

The Librarian of Congress, James Billington, met with the ARL Board of Directors in February 1989 to discuss budget and organizational plans. ARL staff meet regularly with the librarian and his staff to monitor developments. This includes review of the LC reorganization plan and also the preparation of a response to the LC proposal for licensing the MDS data services.

In addition to these efforts, ARL continues to participate in the Library of Congress Network Advisory Committee (NAC) meetings with Prue Adler, ARL Communication Officer, representing ARL interests and concerns. ARL is cosponsoring and assisting in planning National Net '90. ARL staff participated in EDUCOM's Telecommunications Task Force (NTTF) discussions of the design and development of a national telecommunications research network and in SWIG (a telecommunications workgroup).

VIII. Access to Scholarly Information Projects and Committees

This capability is related to establishing, funding, and managing selected projects to achieve the ARL mission of enhancing access to scholarly information resources. There are three major access projects underway.

National Register of Microform Masters (NRMM) Recon Project. Effective June 1989, the Computer Company, TCC, the contractor for ARL's NRMM Recon Project, terminated the contract for converting the monographic reports in the NRMM Master File. TCC has converted about 60,000 records, and LC's Cataloging Distribution Service is now distributing these records. ARL and LC began the rebidding process in March, and the selection process of the new contractor has resulted in the decision to use OCLC, Inc. to complete the project. ARL and LC will resume project operation as quickly as possible and anticipate reaching full production levels in January 1990.

Serials Prices. After a year-long study, ARL received two final reports on serials prices form Economic Consulting Services, Inc. (ECS) and Ann Okerson. ARL commissioned these studies in the spring of 1988 in response to what has been widely regarded as a crisis affecting research libraries' ability to serve the information needs of the scholarly community.

Both reports were reviewed by ARL members at the May membership meeting. The related discussions led to a resolution for ARL to proceed quickly with implementing the recommendation. At its July meeting, the ARL Board of Directors approved the establishment of the Office of Scientific and Academic Publishing, to address the recommendations in the serials prices project and to position ARL to deal more directly with other scholarly communication concerns. The ARL Board also recommended a dues increase to members in order to fund this office.

During the summer, additional efforts were directed toward investigating a series of lawsuits brought by Gordon and Breach against several science faculty and other scientific publishers. Contacts were established with representatives of IEEE, AAAS, AAU, AAUP, and AIP. Programs on serial prices are planned by AAAS and AAU, and these organizations have requested assistance from ARL.

North American Collections Inventory Project. This project is administered by the Office of Management Services. See p. 5 for status report.

IX. International Relations

This capability covers monitoring activities, maintaining selected contacts, identifying developments on issues of importance to American research libraries, and sharing experience of North American research libraries that may contribute to development of research libraries internationally.

ARL met in England with SCONUL as part of a joint meeting in October, 1988. As the result of discussions held at this meeting and subsequently at the British Library, several joint UK/ARL projects are being considered. First an invitation was extended by ARL to SCONUL to sponsor a joint meeting in North America as part of the regular fall ARL meeting schedule. Second, options for joint action over serials prices will be considered as part of the outgrowth of the ARL study of the problem. Third, a formal program of senior staff exchanges is being developed and funding sources are being explored. ARL staff met with British Library representatives during the IFLA meeting to advance these projects.

The International Federation of Library Associations (IFLA) met in Paris in August, and the Executive Director attended the meeting on behalf of ARL. Mr. Webster is also serving on the executive committee for the IFLA Roundtable on Association Management. Six ARL directors made presentations at the IFLA meeting: James Billington, Library of Congress, "Managing Change in National Libraries: the Library of Congress;" Arthur Curley, Boston Public Library, "Funding for Public Libraries in the 1990s;" Malcolm Getz, Vanderbilt University, "The Economics of Research Libraries: A Present State and Future Prospects;" Paul Mosher, University of Pennsylvania, "Collaborative Interdependence: The Human Dimensions of the Conspectus;" Joseph Rosenthal, University of California, Berkeley, "Crumbling Wall: The Impact of the Electronic Age on Libraries and Their Clienteles;" and David Weber, Stanford University, "The Future of Capital Funding of Library Buildings."

X. General Administration

Financial Management. In July, a balanced budget for 1990 was developed with the assistance of the ARL Executive Committee. Subsequently, the ARL Board of Directors approved a dues proposal for membership consideration which contains an increase of 20.4%, reflecting a 5% inflationary increase in the current operating budget; the establishment of a new serials capability (Office of Scientific and Academic Publishing); and an increase to be placed in the reserve.

At the beginning of 1989, the Association changed from a modified cash basis accounting policy to an accrual basis. Financial reports are now made available from G.P. Graham (the accounting service employed by ARL) within two weeks of the completed month.

Staff changes. Jaia Barrett, Assistant Executive Director, will take a two-year leave of absence from ARL to join her husband in West Germany. Nicola Daval will leave ARL at the end of the year to pursue her theatrical career. These changes, coupled with the Board and Membership Resolution to establish a new program capability on the Serials Prices Project, leave ARL with three positions to be recruited:

> Senior Program Officer--this initial classification has the potential of moving to Assistant or Deputy Executive Director. The position encompasses responsibilities associated with the ARL statistics program, as well as projects to explore new measures of library operations and performance;
>
> Director, Office of Scientific and Academic Publishing--this position's funding depends upon membership approval of a dues increase. An experienced research librarian is needed who has a working knowledge of the publishing industry and who also has a demonstrated expertise in collection analysis, building relationships among institutions, national policy development, and publisher relations; and
>
> Program Officer, Communications--this position is available to a librarian with operational experience in a research library, as well as some background or expertise in issues affecting the future of research libraries.

Staff Visits. A series of ARL senior staff visits to ARL member libraries was continued. ARL staff accepted invitations to visit member institutions and discuss research library issues and prospects with library staff and other pertinent constituencies. The visits have included: University of Delaware, Yale University, Brown University, University of Wisconsin, University of Maryland, the State University of New York, Albany, and the University of Connecticut. A visits is planned for the University of Alabama. Member libraries requesting a visit are expected to assist in funding travel expenses.

Visiting Program Officers. An invitation to ARL members to nominate staff to participate in a visiting program officer project prompted several inquiries. In November 1988, Rhonda MacInnes of the National Library of Canada began as an intern/trainer for one year. Karen Turko from University of Toronto is preparing an analytical, state-of-the-art report on mass deacidification processes. Samuel A. Streit of Brown University is working on a review of the past ten years of the HEA II-C program. The study is supported by a $4,600 grant from the H.W. Wilson Foundation. Sandra Peterson, Yale University, continues to assist in the review of legislation on OMB authority. Ms. Peterson prepared a summary document for ARL and ALA on "Federal Information Policy: Issues and Activities." Crystal Graham, University of California, San Diego, will draft the guidelines for the creation of bibliographic records for preservation microform masters for serials. Jean Loup, University of Michigan, will develop a portfolio on a number of issues including telecommunications, statistics, and serials. Beth Shapiro, Michigan State University, will begin working with the Executive Office on telecommunications and statistics.

APPENDIX C

Status report on

Licensing Agreement for Library of Congress MARC Records

10/16/89

Overview

On July 18, 1989, the Library of Congress announced plans to introduce a licensing agreement for the use of MARC Distribution Service records effective January 1, 1990. By October 31, 1989, all subscribers were required to sign an agreement that sets forth the new terms and provisions. Last Friday, October 13, subscribers were notified that implementation of the agreement would be delayed.

In a letter to MDS Subscribers, Henriette Avram wrote: "Due to the strong concern expressed by U.S. librarians, the Librarian of Congress has made the decision to reevaluate the options available for assuring the continued viability of these valuable distribution services. Implementation of the licensing policy will be delayed until this evaluation has taken place. Meanwhile, for calendar year 1990, the Cataloging Distribution Service will be announcing in the next few weeks across-the-board price increases in the MARC services to cover the Library's costs plus 10 per cent."

Terms of the License Proposal

The proposed license agreement would provide for payment of license fees for wholesale redistribution within the U.S. and for selective and wholesale redistribution outside of the U.S. LC defines "wholesale redistribution" as redistribution of all or a large subset of the records, and "selective redistribution" as redistribution of "fewer than half the number of records distributed in a given file during the subscription year." The license fees would be paid in addition to the subscription fee.

In addition to the new fees for redistribution of MARC records, subscribers are required to include the copyright notice of the Library of Congress on all products or systems, which include records originating with the Library of Congress. The notice states that "records originating with the Library of Congress are copyrighted c 1990 by the Library of Congress except within the U.S.A."

In a September 29, 1989 letter to Duane Webster, Dr. Billington restated the need for the Library of Congress to ensure the economic viability and future of MARC Distribution Service products and quality of customer service. Licensing is viewed "as the means by which the Library can sustain the basic support of its MARC services for subscribers who are using the data within their own institution, while requiring additional payments from organizations, including vendors, who derive great benefit from the Library's cataloging by selling or otherwise redistributing the data to others." According to the news release by LC on September 20, 1989, "the licensing agreement is intended to accommodate the selective sharing of MARC records via online systems and on CD-ROM products within the United States." All wholesale redistribution within the U.S. and all significant redistribution outside the United States will be subject to the licensing fee.

Preceding the LC step, the National Library of Medicine has also announced a new subscription agreement, effective October 1, that imposes license fees on the use and transfer of NLM records.

Community Response

OCLC took a strong public stand against license fees for MARC and NLM records. At its September 20-22 meeting, the OCLC Users Council adopted two resolutions that (1) urged the library community to oppose the licensing agreement and (2) urged OCLC to continue its actions to uphold the principles of reasonable access to government-created information.

Numerous letters concerning these developments have been directed to Congress. Congressional staff report an effort to encourage LC to delay implementation of the proposal allowing more consideration and clarification among the concerned parties. This message was also reflected in letters sent to the Librarian by the ARL Executive Director on October 6 and the RLG President on October 13.

While uncertainty remains within the research library community concerning the economic impact of licensing for U.S. institutions, there is growing apprehension concerning the licensing of government-produced bibliographic information and services and concerning copyright of bibliographic data. The licensing issue has raised two sets of concerns: (1) impact of potential price increases, and (2) departure from the principle of no copyright restrictions on information created with public funds.

ARL Concerns

ARL directors are concerned that the licensing and copyrighting of bibliographic information and services will undermine the essential principle of open access to and exchange of bibliographic records as well as the historically strong working relationships among the research library community and the Library of Congress. ARL must continue to nurture our working relationship while reaffirming the principles inherent in the work and past discussions of the Association. To underscore these commitments, ARL has taken a number of related actions:

- In commenting on the LC transition plans, Duane Webster in his July 14, 1989 letter voiced ARL's concern over the licensing of LC information products and services.
- The ARL Board reaffirmed the 1987 "Statement on Unlimited Use and Exchange of Bibliographic Records" and adopted an addendum at its February 1989 meeting that underscores that" unrestricted bibliographic access is essential to research libraries both as a means of resource sharing, and as a means for supporting cooperation in preservation and cataloging."
- The ARL membership adopted at its May 1988 business meeting the Statement of Principles for Government Information in Electronic Format. This statement was developed by the Task Force on Government Information in Electronic Format and endorsed by the Committee on Government Policies and the Board. The six principles are:

1. The open exchange of public information should be protected.

2. Federal policy should support the integrity and preservation of government electronic databases.

3. Copyright should not be applied to U.S. Government information.

4. Diversity of sources of access to U.S. Government information is in the public interest and entrepreneurship should be encouraged.

5. Government information should be available at low cost.

6. A system to provide equitable, no-fee access to basic public information is a requirement of a democratic society.

* The ARL membership in October 1985 adopted a statement on Access to Information. The policy states that the "issue of access to and dissemination of information collected or produced by the Federal Government is of particular concern to ARL." Further it underscored ARL's commitment to unrestricted access to information.

On a fundamental level, the commitment to these principles represents an enduring philosophy that has been a driving force behind many ARL efforts and continues to be an essential element of ARL's mission.

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APPENDIX D

ARL OFFICE OF SCIENTIFIC AND ACADEMIC PUBLISHING (OSAP)

1. Background

During the period of 1984-87, serials prices increased rapidly, seemingly as a result of a number of factors, including: differential pricing, decline of the U.S. dollar in the international market, increased profit taking, and continued proliferation of information publication. This phenomenon of serial price increases is now recognized as a cyclical process with patterns of dramatic increases followed by library outrage that have occurred with regularity since the 1920s and prior to the 1980s, most recently in 1975-77. This time, ARL members find the acquisition pressure particularly troublesome due to the competing investments needed to automate library operations, introduce electronic information services, and address the preservation problem.

Concerned members drew the Association's attention to these concerns in a series of "hot topic" discussion sessions sponsored by the Committee on Collection Development as part of ARL membership meetings since 1986. Concurrently, the ARL Statistics Committee began collecting more precise data on serials acquisitions that demonstrated graphically the seriousness of the serials prices problem and its impact on library budgets.

The ARL Committee on Collection Development began exploring alternative responses to the serial pricing problem, including securing legal advice, investigating member responses to the crisis, and looking at other actions being taken to address the problem. It became apparent that the current crisis differs somewhat from earlier cycles due to the growing prominence of foreign commercial publishers and the recent proliferation of titles and volumes of published research. The Committee's discussions led to a proposal to secure objective outside analyses of price and cost patterns for targeted publishers, to assess the causes of the current crisis, and to develop short- and long-term responses to the crisis that might moderate price increases in the future.

This proposal was approved by the ARL Board of Directors at its February 1988 meeting and subsequently, the membership voted to assess themselves $200 per institution to fund the investigations. Econonic Consulting Services and Ann Okerson were retained by ARL staff to carry out the work. The Council on Library Resources provided an additional $15,000 to complete data gathering, which proved more costly than originally expected. The final reports were presented to the Board of Directors, the Committee on Collection Development, and the membership at the May 1989 Membership Meeting and were endorsed by all groups. Resolutions to implement the recommended actions were passed at the May meeting.

2. Current Activities - June/October 1989

The reports were published and distributed widely in June (1,000 reports were printed, 200 were distributed without charge, and 266 have been sold as of October 12, 1989). Staff and member efforts to publicize the report have drawn considerable press attention to the serials prices issues, including coverage in: The New York Times, The Los Angeles Times, The Chronicle of Higher Education, American Libraries, Library Journal, Science, Academe, and The Scientist. Publicity efforts to bring these issues to the attention of a broader constituency are ongoing.

Building alliances with other higher education groups continues to be a major focus. Staff have met with representatives of AAAS, AAU, AAUP, NHA, ACLS, SSP, and IEEE to explore possible joint efforts on these problems. In addition, recent contacts with EDUCOM and SWIG (a network group) have dealt with the serials prices issue. Scientific and scholarly groups are uniformly supportive of this initiative and concerned about the growing expense and proliferation of STM information.

At ALA in Dallas, considerable attention was directed toward the reports. Two ACRL meetings featured presentations on the reports, and various other sessions referenced and discussed them. One particularly notable discussion was a meeting with the RTSD Blue Ribbon Panel on Serials. Support for the report evident at the Dallas meeting demonstrates broad based support from the profession for the ARL initiative.

ARL's role as spokesperson for the profession on the serials problem is further confirmed by a recently-released draft report of the RTSD Blue Ribbon Panel. The draft recommendations support both the conclusions of the ARL studies and the establishment of the Office of Scientific and Academic Publishing.

Reaction from publishers has been predictable: discrediting the findings, denying excessive profits, and expressing a desire to talk about collaboration. The reports were distributed to the four firms targeted in the study and the list of sampled journals were offered to them. ARL staff met with representatives from Springer/Verlag and Elsevier in June. In addition, Springer has invited the Executive Director to serve as a panelist during a November conference on serials.

The Gordon and Breach lawsuits against Henry Barschall, Professor Emeritus at the University of Wisconsin, are cause for concern. Discussions were held at IFLA with representatives of ALA and German and Swiss libraries to share information regarding the law suits, filed in Germany and Switzerland. It was agreed that no concerted action would be taken at this point, but that the groups represented would continue to gather and share information. In addition to the suit against Professor Barschall, Gordon and Breach has filed suit in Philadelphia against the British publisher, Taylor and Francis, as well as the editor of its journal, Liquid Crystals, first publiished in 1986. The suit contends, among other points, that the G&B journal, Molecular Crystals and Liquid Crystals (MCLC), published since 1966, is generally known by the title, Liquid Crystals, and that the editor of Liquid Crystals had proprietary information as a result of previously serving on the Editorial Advisory Board of MCLC. ARL staff have been in touch with the Taylor and Francis lawyers and are monitoring the situation.

The reports were distributed to Congressional committee staff with relevant interests, including: the House Committee on Education and Labor, Subcommittee on Elementary, Secondary, and Vocational Education; the House Postsecondary Education Committee; the House Committee on Science, Space, and Technology, Subcommittee on Science, Research, and Technology; the Senate Committee on Commerce, Science, and Transportation; as well as OTA and CRS/LC.

3. Description of Office

At their July 25, 1989 meeting, the ARL Board of Directors agreed to establish a permanent addition to the ARL framework of capabilities. The addition, to be called the ARL Office for Scientific and Academic Publishing, would be directed toward understanding and influencing the forces affecting the production, dissemination, and use of scientific and scholarly information.

The objectives of this new office include:

- to develop a better understanding of the dynamics of scientific and scholarly publishing by conducting research and exchanging information on current practices and problems;
- to moderate the rate of increase of serial prices and information in all formats by encouraging competition, providing information on prices and costs, publicizing publishers' practices, and encouraging the movement of publishing to non-profit organizations;
- to provide consumer advocacy information to users and librarians in order to address issues related to research library collection management and use;
- to improve the quality of scientific and scholarly publications by providing information on the use of information, assessing the relative quality of publications available, and encouraging quality control practices in the publishing industry;
- to work with governmental agencies in shaping the evolving nature of scientific communications; and
- to communicate research library positions on issues related to the production, dissemination, and use of scholarly and scientific information.

It is expected that the approved level of funding will allow a staged approach to building this new capability. At the outset, the office will focus on scientific, technical, and medical publications. Later, humanistic, historical, and social sciences publications will be included. The activities of the office will build on work ongoing in the profession and accomplished in the recent ARL serials prices project. The office, in the first few years, will serve as a clearinghouse for exchange of information and the mobilization of action among the interested parties. Initially, a consumer advocacy and user education role will be emphasized.

Prospective projects and potential activities include:

- work with scientific and scholarly societies to design and operate seminars on factors contributing to the information crisis and respective roles for addressing issues;
- promote changes in the management of intellectual property rights;
- reduce reliance on publication records as criteria for federal grants;
- contribute to the development of the national network as vehicle for the exchange of research results;
- encourage experimentation in the area of electronic journals;
- work with scholars and faculty to establish a set of common evaluation standards for all scholarly publications to integrate a journal's price with measurements of value based upon the journal's contribution to the field;
- establish buying groups of libraries to exercise purchasing power through the negotiation of quantity discounts;
- promote wider participation in the publishing process through more widespread use of competitive bidding for publishing contracts by professional associations, university presses and new entrants; and
- conduct a feasibility study for a new "merchant" publishing house dedicated to the service of no-frills journal publishing.

This listing of activities is meant to illustrate the range of possibilities that will be evaluated once the office is established and staff are recruited.

4. Potential Impact

This new capability addresses the need for more and better information by member libraries on the serials crisis. As a consumer advocate, ARL would provide research libraries, their users, and funders with better information to manage acquisitions and to plan for the future. It is reasonable to anticipate that this option would attract media attention, encourage governmental attention, and exert ongoing pressure on publishers.

The criteria for judging success of this option would be:

- ARL libraries have current, frequently updated information useful in their budgeting activities and faculty contacts.
- ARL libraries are better prepared to assist faculty, and university administrators are better informed on the nature of the serials problem and its impact on library operations.
- There is continuing national attention directed to this set of issues.

While this capability addresses the need to establish a consumer advocacy and education presence, it also emphasizes building working alliances with targeted groups to influence national information policy development over the longer term. The criteria for judging success of these aspects of the capability include results such as:

- serial prices are contained or ameliorated;
- some scholarly publishing is transferred from the commercial to the not-for-profit sector, or commerical prices more closely approximate not-for-profit prices; and
- there is a visible increase in discussions by university administrators and faculty about publications as part of academic review and rewards.

In the long run, the office will likely be evaluated in terms of whether librarians, with other members of the scholarly community, are able to influence future developments in scientific and scholarly communication. This requires building an initial capability that is useful to members and connects well with scientific and scholarly organizations.

ARL Staff
Updated 10/12/89

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APPENDIX E

October 13, 1989

Status Report: Reauthorization of the Paperwork Reduction Act (PRA)

Background

Several congressional committees are considering legislation that will affect the terms and conditions of public access to U.S. Government information. Central to the legislation is a definition of the roles of the Office of Management and Budget (OMB) and the Government Printing Office (GPO). While it is impossible to separate the issue of OMB and GPO roles, committees are trying to avoid jurisdictional problems. Therefore the draft legislation and the recently introduced Senate bill (S. 1742) address either the role of GPO or that of OMB.

Paperwork Reduction Act (PRA) Summary

The PRA enacted by Congress in 1980 and amended in 1986, seeks to improve the information resources management of the Federal Government. The Act required reauthorization by Congress before September 30, 1989. The Office of Information and Regulatory Affairs (OIRA) within OMB continues to operate despite the failure to reauthorize it by September 30. Key objectives of the PRA include: minimizing the federal paperwork burden on the public, maximizing the usefulness of while minimizing Federal costs of collecting, maintaining, and disseminating information; ensuring the effective acquisition and use of information technology in a manner that improves service delivery and program management; and finally, ensuring compliance with laws relating to confidentiality.

Status of Legislation

The Senate Subcommittee on Government Information and Regulation (Sen. Jeff Bingaman, chair, D-NM), and the House Government Operations Committee (Rep. John Conyers, D-MI) have drafted legislation to reauthorize the Paperwork Reduction Act. Sen. Bingaman introduced the Federal Information Resources Management Act of 1989 (S. 1742) on October 6. Nothing has been introduced on the House side although a variation of H.R. 2381, introduced last May by Rep. Bob Wise (D-W.Va), may be incorporated into the House Government Operations Committee draft legislation to address the dissemination aspects of the Paperwork Reduction Act. In addition, Rep. Jim Bates, (D-CA), chair of the House Subcommittee on Printing and Procurement, has circulated draft legislation that seeks to amend specific chapters of Title 44 concerned with the operation of the Government Printing Office.

A distinction between S. 1742 and the drafts under review by the House is that the Senate bill does not provide as detailed statutory guidance to agencies and OMB as does the House draft. However, one aspect that both bills share in common is a dissemination checklist that requires agencies to consider, among other factors, "if an information product or service available from other public or private sources is equivalent to an agency product or service and reasonably achieves the dissemination objectives of the agency product or service."

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ARL Assessment of the Draft House Legislation

In response to a request from staff of the House Subcommittee on Government Information, Justice and Agriculture, ARL staff sought comments on a draft House PRA bill that specifically addresses dissemination functions of OMB. A September 19th draft bill was sent to ARL Directors on September 21 asking for an assessment. The responses were quick and pointed to a firm conclusion: as written, it is not a bill ARL could support. While ARL directors are committed to reauthorizing the PRA because it provides the opportunity to clarify the roles of OMB, the agencies, and the private sector, and while positive elements were identified in the draft bill, there were two significant concerns that overshadowed and dominated the comments.

The two major concerns about this draft are: (1) the impact of the bill on the ability of executive agencies to independently exercise their dissemination responsibilities, and (2) a provision in the bill that denigrates the dissemination role of the government and elevates the role of the private sector at the expense of equitable public access to government information.

ARL membership response points to a need for the PRA dissemination provisions to be redirected from OMB to federal agencies. The PRA should place authority and responsibilities for fulfilling information dissemination obligations squarely in the hands of Federal agencies.

The second major concern, defining the role of a government agency in relation to activities of the private sector, represents a fundamental point of contention in debates about private sector involvement in government information dissemination. ARL acknowledges the important role of the private sector in the dissemination of government information. However, ARL Membership oppose the provision in the House draft (page 6, lines 6-10) that "requires an agency, in determining how to fulfill its public information dissemination functions, to consider if an information product or service available from other public or private sources is equivalent to an agency product or service and reasonable achieves the dissemination objectives of the agency product or service."

Even OMB has taken the position that "participation by the private sector supplements but does not replace the obligations of government." (See OMB Second Advance Notice, June 15, 1989, 54FR25557). ARL seeks for the law to be clear that private (non-government) sector public information dissemination activities do not replace agency dissemination obligations. The provision in the September 19 draft sets up a situation that will lead to dependence by citizens, state and local governments, researchers and businesses, on private information sources that price access to the information at high rates and that are increasingly foreign-owned. ARL does not believe it is good public policy to encourage this.

ARL members identified a number of changes in the draft bill that would clarify agency authority, strengthen the concept of an affirmative obligation on the part of government to disseminate government information, remove barriers to agency dissemination actions, and clarify the definition of public information. ARL staff will communicate these changes to the appropriate Members of Congress and Committee staff, and will continue to work with House and Senate Committee staffs to address the concerns about how PRA legislation will effect public access to government information.

APPENDIX F

FEDERAL RELATIONS STATUS REPORT

OCTOBER 1989

APPROPRIATIONS FOR FY 90

The federal budget for FY90 has not been determined. Across the board reductions to appropriation bills remain a possibility. For the most part, Congressional funding in support of libraries and library programs remains at the level provided in FY89 with modest increases to maintain services in the face of increased costs. This includes HEA II programs. The Library of Congress received an increase of 5.4% over the current year. There are two exceptions to this pattern. The NEH Office of Preservation received a considerable increase: an extra $1.2 million for preservation of library resources in the humanities (bringing the total to $13.5 million), and an additional $4.2 million for conservation of museum collections. A cut in the GPO SuDocs budget may result in a significant negative impact on the Depository Library Program.

PERMANENT PAPER POLICY

With 48 sponsors the Senate passed S.J. Res. 57, a National Policy on Permanent Paper, on July 31. The measure was initiated by Sen. Claiborne Pell (D-RI) to encourage publisher use of permanent paper. There are now two legislative measures before the House of Representatives regarding the use of permanent paper. H.J. Res 226, introduced by Rep. Pat Williams (D-MN), with 54 sponsors, is identical to S.J. Res. 57. On August 2, Rep. Doug Walgren (D-PA) introduced H.R. 3094 amending the Solid Waste Disposal Act to ensure that the recycled paper acquired by U.S. agencies for government records and publications is also permanent paper.

The Government Printing Office received strong encouragement for its role in ensuring government use of permanent paper in a House Appropriations Committee Report (H. Rept. 101-179). The report stated that GPO "should aggressively pursue the usage of alkaline, low-acid content paper for its inhouse and commercially procured printing" and directed preparation of a plan to identify "the extent, source, and types of archival type printed matter produced inhouse and acquired commercially" by GPO and a "strategy and schedule to convert this printing to alkaline paper."

NEA GRANTS CONTROVERSY

Controversy over two grants awarded by the National Endowment for the Arts has spilled over on all NEA and NEH programs. Congressional debate involved charges of blasphemy and obscenity and exacerbated tensions over the need to preserve artistic and intellectual freedom on the one hand, and careful stewardship on tax dollars on the other hand. The political resolution of the debate was a ban on both endowments for support of projects that may be considered obscene in the judgement of the Endowments. Procedures for the NEH regrants programs must be changed to secure NEH approval of all awards made by regrant agencies involving NEH or NEA funds. This will have an impact on procedures of independent research libraries that administer fellowships from NEH funds. There is concern that the ban be applied to book or other materials treated by Office of Preservation grants. A Commission is being established by Congress to review guidelines and grantmaking procedures of the endowments and consider whether the standard for publicly funded art should be different than the standard for privately funded art.

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NATIONAL RESEARCH & EDUCATION NETWORK (NREN)

Identical legislation that describes development of the NREN ("National High Performance Computer Technology Act of 1989," S. 1067 and H.R. 3131) has been introduced by Sen. Albert Gore (D-TN) and Rep. Doug Walgren (D-PA) . Title III of the bills address the information infrastructure and a "digital library" to be available via the network. The White House has announced support for the concept but not the legislation, stating that administrative action is sufficient for development of the network. Hearings have begun. Librarian of Congress James Billington has testified before the Senate Science, Technology and Space Subcommittee and identified issues requiring examination as the NREN evolves.

ROLE OF RBOCs IN TELECOMMUNICATION INDUSTRY

The Consumer Telecommunications Services Act of 1989 (HE 2140), introduced on April 27 by Reps. Al Swift (D-WA) and Tom Tauke (R-IA), would permit regional Bell operating companies (RBOCs) to compete in the provision of information services and in the manufacturing of telecommunications equipment. Currently, these companies are restricted from such business. Although it is considered unlikely this or related legislation will pass this session of Congress, certain safeguards to protect the interests of other information providers are being discussed. One important safeguard is the prohibition of an RBOC from providing more that 25% of services to its own region.

GOVERNMENT INFORMATION POLICIES

Several congressional committees are considering legislation that will affect the terms and conditions of public access to U.S. Government information. Central to the legislation is a definition of the roles of OMB and GPO. There have been a succession of 'draft discussion bills' addressing the roles of both agencies, and the depository library program, since May. As of this writing, only a Senate bill has moved to the point of introduction. On October 6, Senator Jeff Bingaman (D-NM) introduced S. 1742, the Federal Information Resources Management Act of 1989. This legislation reauthorizes the Paperwork Reduction Act and defines OMB authority for government wide information resources management, including dissemination.

DEPOSITORY LIBRARY PROGRAM PILOT PROJECTS

The Government Printing Office has announced the next step in development of pilot projects for placing electronic formats into the Depository Library Program. The pilots, including both CD-ROM and online information projects from five different government agencies, have been given the go-ahead by the Joint Committee on Printing and the Appropriations Committees. In September, Commerce Business Daily announced a GPO pre-solicitation meeting for November 11 "to identify opportunities for depository library dissemination of federal agency information products and services in electronic formats which can be made available through non-government channels."

COPYRIGHT & SOFTWARE

Legislation to prohibit the lending of computer software has been introduced in the House (H.R. 2740) and Senate (S. 198). Large software companies have promoted the legislation to protect themselves from routine piracy. The House bill, introduced in June by Rep. Mike Synar (D-OK), includes an exemption for nonprofit libraries.

APPENDIX G

ATTENDANCE AT 115TH MEMBERSHIP MEETING

Bethesda, Maryland
October 18-20, 1989

MEMBER INSTITUTIONS

University of Alabama Libraries
Charles B. Osburn

University of Alberta Library
John Teskey

University of Arizona Library
Shelley Phipps

Arizona State University Library
Mara Pinckard

Boston Public Library
Arthur Curley

Boston University Library
John Laucus

Brigham Young University Library
Sterling Albrecht

University of British Columbia Library
Not Represented

Brown University Library
Merrily E. Taylor

University of California, Berkeley Library
Joseph A. Rosenthal

University of California, Davis Library
Marilyn J. Sharrow

University of California, Irvine Library
Calvin J. Boyer

University of California, Los Angeles Library
Gloria Werner

University of California, Riverside Library
Not Represented

University of California, San Diego Library
Dorothy Gregor

University of California, Santa Barbara Library
Joseph Boisse

Canada Inst. for Scientific & Technical Info.
Elmer V. Smith

Case Western Reserve University Libraries
Susan J. Coté

Center for Research Libraries
Donald B. Simpson

University of Chicago Library
Martin Runkle

University of Cincinnati Libraries
Not Represented

University of Colorado Library
James F. Williams II

Colorado State University Library
Joan Chambers

Columbia University Libraries
Carol A. Mandel

University of Connecticut Library
Norman D. Stevens

Cornell University Libraries
Alain Seznec

Dartmouth College Libraries
Margaret A. Otto

University of Delaware Library
Susan Brynteson

Duke University Libraries
Jerry D. Campbell

Emory University Library
Joan I. Gotwals

University of Florida Libraries
Dale B. Canelas

Florida State University Library
Charles E. Miller

Georgetown University Library
Joseph E. Jeffs

University of Georgia Libraries
William G. Potter

Georgia Institute of Technology Library
Not Represented

University of Guelph Library
John B. Black

Harvard University Library
Sidney Verba

University of Hawaii Library
John R. Haak

University of Houston Libraries
Robin N. Downes

Howard University Libraries
Ann K. Randall

University of Illinois at Chicago Library
William Jones

University of Illinois at Urbana Library
David F. Bishop

Indiana University Libraries
James G. Neal

University of Iowa Libraries
Sheila D. Creth

Iowa State University Library
Nancy Eaton

Johns Hopkins University Library
Scott Bennett

University of Kansas Library
John S. Miller

University of Kentucky Libraries
Paul A. Willis

Kent State University Libraries
Don Tolliver

Laval University Library
Not Represented

Library of Congress
Ellen Hahn

Linda Hall Library
Louis Martin

Louisiana State University Library
Sharon A. Hogan

McGill University Library
Eric Ormsby

McMaster University Library
Marju Drynah

University of Manitoba Libraries
Not Represented

University of Maryland Library
H. Joanne Harrar

University of Massachusetts Libraries
Richard J. Talbot

Massachusetts Inst. of Technology Librs.
Jay K. Lucker

University of Miami Library
Frank D. Rodgers

University of Michigan Library
Robert Warner

Michigan State University Library
Beth Shapiro

University of Minnesota Libraries
Not Represented

University of Missouri Library
Not Represented

National Agricultural Library
Joseph H. Howard

National Library of Canada
Tom Delsey

National Library of Medicine
Lois Ann Colaianni

University of Nebraska-Lincoln Libraries
Kent Hendrickson

Newberry Library
Not Represented

University of New Mexico Library
Not Represented

New York Public Library
Paul Fasana

New York State Library
Jerome Yavarkovsky

New York University Libraries
Not Represented

University of North Carolina Library
James F. Govan

North Carolina State University Library
Susan K. Nutter

Northwestern University Libraries
John P. McGowan

University of Notre Dame Libraries
Robert C. Miller

Ohio State University Libraries
William J. Studer

University of Oklahoma Library
Sul H. Lee

Oklahoma State University Library
Edward Johnson

University of Oregon Library
George W. Shipman

University of Pennsylvania Libraries
Paul H. Mosher

Pennsylvania State University Library
Nancy Cline

University of Pittsburgh Libraries
William Roselle

Princeton University Library
Donald Koepp

Purdue University Library
Emily R. Mobley

Queen's University Library
Margot B. McBurney

Rice University Library
Samuel Carrington

University of Rochester Libraries
Not Represented

Rutgers University Library
Joanne R. Euster

University of Saskatchewan Library
Not Represented

Smithsonian Institution Libraries
Barbara Smith

University of South Carolina Libraries
Arthur P. Young

University of Southern California Library
Philip Tompkins

Southern Illinois University Library
Kenneth G. Peterson

Stanford University Libraries
David C. Weber

State Univ. of New York at Albany Libraries
Meredith Butler

State Univ. of New York at Buffalo Libraries
Stephen Roberts

State Univ. of New York at Stony Brook Librs.
John B. Smith

Syracuse University Library
David H. Stam

Temple University Library
James Myers

University of Tennessee Libraries
Paula T. Kaufman

University of Texas Libraries
Harold W. Billings

Texas A & M University Library
Sherrie Schmidt

University of Toronto Libraries
Carole Moore

Tulane University Library
Philip E. Leinbach

University of Utah Libraries
Roger K. Hanson

Vanderbilt University Library
Malcolm Getz

Virginia Polytechnic Inst. & State Univ.
Paul M. Gherman

University of Virginia Libraries
Ray Frantz

University of Washington Library
Charles E. Chamberlin

Washington State Universities Library
Donna L. McCool

Washington University Libraries
Shirley Baker

University of Waterloo Library
Not Represented

Wayne State University Libraries
Peter Spyers-Duran

University of Western Ontario Library
Not Represented

University of Wisconsin Libraries
Jennifer A. Younger

Yale University Libraries
Jack A. Siggins

York University Libraries
Ellen Hoffmann

NAME INDEX

MEMBERS

Albrecht, Sterling	Brigham Young University Library
Baker, Shirley	Washington University Libraries
Bennett, Scott	Johns Hopkins University Library
Billings, Harold W.	University of Texas Libraries
Bishop, David F.	University of Illinois at Urbana Library
Black, John B.	University of Guelph Library
Boisse, Joseph	University of California, Santa Barbara Library
Boyer, Calvin J.	University of California, Irvine Library
Brynteson, Susan	University of Delaware Library
Butler, Meredith	State University of New York at Albany Libraries
Campbell, Jerry D.	Duke University Libraries
Canelas, Dale B.	University of Florida Libraries
Carrington, Samuel	Rice University Library
Chamberlin, Charles E.	University of Washington Library
Chambers, Joan	Colorado State University Library
Cline, Nancy	Pennsylvania State University
Colaianni, Lois Ann	National Library of Medicine
Coté, Susan J.	Case Western Reserve Libraries
Creth, Sheila D.	University of Iowa Libraries
Curley, Arthur	Boston Public Library
Delsey, Tom	National Library of Canada
Downes, Robin N.	University of Houston Libraries
Drynah, Marju	McMaster University Library
Eaton, Nancy	Iowa State University Library
Euster, Joanne R.	Rutgers University Library
Fasana, Paul	New York Public Library
Frantz, Ray	University of Virginia Libraries
Getz, Malcolm	Vanderbilt University Library
Gherman, Paul M.	Virginia Polytechnic Inst. and State Univ. Library
Gotwals, Joan I.	Emory University Library
Govan, James F.	University of North Carolina Libraries
Gregor, Dorothy	University of California, San Diego Library
Haak, John R.	University of Hawaii Library
Hahn, Ellen	Library of Congress
Hanson, Roger K.	University of Utah Libraries
Harrar, H. Joanne	University of Maryland Library
Hendrickson, Kent	University of Nebraska-Lincoln Libraries
Hoffmann, Ellen	York University Libraries

Hogan, Sharon A.	Louisiana State University Library
Howard, Joseph H.	National Agricultural Library
Jeffs, Joseph E.	Georgetown University Library
Johnson, Edward	Oklahoma State University Library
Jones, William	University of Illinois, Chicago Libraries
Kaufman, Paula T.	University of Tennessee Libraries
Koepp, Donald	Princeton University Library
Laucus, John	Boston University Libraries
Lee, Sul H.	University of Oklahoma Library
Leinbach, Philip E.	Tulane University Library
Lucker, Jay K.	Massachusetts Inst. of Technology Libraries
Mandel, Carol	Columbia University Libraries
Martin, Louis	Linda Hall Library
McBurney, Margot B.	Queen's University Library
McCool Donna L.	Washington State University Library
McGowan, John P.	Northwestern University Libraries
Miller, Charles E.	Florida State University Library
Miller, John S.	University of Kansas Library
Miller, Robert C.	University of Notre Dame Libraries
Mobley, Emily R.	Purdue University Library
Moore, Carole	University of Toronto Libraries
Mosher, Paul H.	University of Pennsylvania Libraries
Myers, James	Temple University Library
Neal, James G.	Indiana University
Nutter, Susan K.	North Carolina State University Library
Ormsby, Eric	McGill University Libraries
Osburn, Charles B.	University of Alabama Libraries
Otto, Margaret A.	Dartmouth College Libraries
Peterson, Kenneth G.	Southern Illinois University Library
Phipps, Shelley	University of Arizona Library
Pinckard, Mara	Arizona State University Library
Potter, William G.	University of Georgia Libraries
Randall, Ann K.	Howard University Libraries
Roberts, Stephen	State University of New York-Buffalo
Rodgers, Frank D.	University of Miami Library
Roselle, William	University of Pittsburgh Libraries
Rosenthal, Joseph A.	University of California, Berkeley Library
Runkle, Martin D.	University of Chicago Library
Schmidt, Sherrie	Texas A&M University Library
Seznec, Alain	Cornell University Libraries
Shapiro, Beth	Michigan State University Library
Sharrow, Marilyn J.	University of California, Davis Library
Shipman, George W.	University of Oregon Library

Siggins, Jack A.	Yale University Libraries
Simpson, Donald B.	Center for Research Libraries
Smith, Barbara	Smithsonian Institution Libraries
Smith, Elmer, V.	Canada Institute for Scientific and Technical Information
Smith, John B.	State University of New York-Stony Brook Libraries
Spyers-Duran, Peter	Wayne State University Libraries
Stam, David H.	Syracuse University Libraries
Stevens, Norman D.	University of Connecticut Library
Studer, William J.	Ohio State University Libraries
Talbot, Richard J.	University of Massachusetts Libraries
Taylor, Merrily E.	Brown University Library
Teskey, John	University of Alberta Library
Tolliver, Don	Kent State University Libraries
Tompkins, Philip	University of Southern California Library
Verba, Sidney	Harvard University Library
Warner, Robert	University of Michigan Libraries
Weber, David C.	Stanford University Libraries
Werner, Gloria	University of California, Los Angeles Library
Williams, James F.	University of Colorado Library
Willis, Paul A.	University of Kentucky Libraries
Yavarkovsky, Jerome	New York State Library
Young, Arthur P.	University of South Carolina Libraries
Younger, Jennifer A.	University of Wisconsin Libraries

ARL STAFF

Webster, Duane E.	Executive Director
Adler, Prudence	Federal Relations Officer
Barrett, Jaia	Assistant Executive Director
Daval, Nicola	Program Officer
Gardner, Jeffrey J.	Director, Office of Management Services
Hilliard, Linda	Executive Assistant/Office Manager
Jurow, Susan	Associate Director, Office of Management Services
Liriano, Maira	Research Assistant
Loup, Jean	Visiting Program Officer
MacInnes, Rhonda	Training Intern
Reed-Scott, Jutta	Program Officer

GUESTS

Armstrong, Scott	National Security Archive
Avram, Henriette, D.	Library of Congress
Bender, David	Special Libraries Association
Billington, James	Library of Congress - Speaker
Buckman, Thomas R.	The Foundation Center
Cummings, Martin	Council on Library Resources
DeBacher, Dick	Southern Illinois University Press, *rep.* Association of American University Presses
DeCandido, GraceAnne	*Library Journal*
Farr, George F., Jr.	National Endowment for the Humanities
Fretwell, Gordon	University of Massachusetts
Friend, Fred	University College, London, *rep.* Standing Conference of National and University Libraries
Haas, Warren J.	Council on Library Resources
Hammer, John	National Humanities Alliance
Heanue, Anne	American Library Association
Henderson, Carol	American Library Association
Lieber, Hillary	Joint Committee on the Library
Lindberg, Donald	National Library of Medicine - Speaker
Martin, Susan K.	National Commission on Libraries and Information Services
Mathews, Anne	U.S. Department of Education
Morton, Sandy	Special Library Association
Okerson, Ann	Jerry Alper, Inc.
Sittig, William J.	Library of Congress
Smith, K. Wayne	OCLC, Inc.

APPENDIX H

OFFICERS, BOARD OF DIRECTORS, COMMITTEES AND TASK FORCES

OCTOBER 1989

ARL OFFICERS AND BOARD FOR 1988-89

Charles E. Miller, President
Martin Runkle, Vice President & President-Elect
Elaine F. Sloan, Past-President
David F. Bishop (Oct. 1986-Oct. 1989)
D. Kaye Gapen (Oct. 1987-Oct. 1990)
Ellen Hoffmann (Oct. 1988-Oct. 1991)
Charles Osburn (Oct. 1988-Oct. 1991)
Carlton C. Rochell (Oct. 1987-Oct. 1990)
Marilyn J. Sharrow (Oct. 1987-Oct. 1990)
Thomas W. Shaughnessy(Oct. 1988-Oct. 1991)
Merrily Taylor (Oct. 1986-Oct. 1989)

STANDING COMMITTEES AND TASK FORCES

Committee on Government Policies

Susan Brynteson (1989-91)
Paul Gherman (1988-90)
John Haak (1989-91)
Ellen Hoffmann (1989-91)
James Myers (1987-89)
Joseph Rosenthal (1987-89)
Paul Willis (1989-91)
James F. Wyatt (1986-89)
Merrily Taylor (1989-91), Chair (1989-90)

Staff: Jaia Barrett

Committee on Nominations (1989)

David Laird
Margaret Otto
Martin Runkle, ARL Vice President, Chair

Committee on the Management of Research Library Resources

John Black (1988-90)
Jerry D. Campbell (1989-91)
Sheila Creth (1988-90)
Joanne Euster 91989-91)
Maureen Pastine (1987-89)
Thomas W. Shaughnessy (ex officio as Chair of Committee on ARL Statistics)
Peter Spyers-Duran (1987-89)
Jerome Yavarkovsky (1989-91)
Sul H. Lee (1987-89), Chair (1987-89)

Staff: Duane Webster

Committee on ARL Statistics

Dale Canelas (1987-89)
Gordon Fretwell, University of Massachusetts (Consultant)
Joan Gotwals (1989-91)
Kent Hendrickson (1989-91)
Graham Hill (1989-91)
Kendon Stubbs, University of Virginia (Consultant)
Thomas W. Shaughnessy (1986-88), Chair (1987-88)

Staff: Nicola Daval

Committee on Collection Development

Joseph Boissé (1987-89)
Linda Cain (1989-91)
John Laucus (1989-91)
Paul Mosher (1989-91)
Charles Osburn (1989-91)
William Sittig, Library of Congress Liaison
Mary Jane Starr, National Library of Canada Liaison
James Thompson (1989-91)
Paul Wiens (1989-91)
Susan Nutter (1988-90), Chair (1989-90)

Staff: Jeffrey Gardner

Committee on Bibliographic Control

Henriette Avram, Library of Congress Liaison
Calvin Boyer (1989-91)
Paul Fasana (1988-90)
Jay K. Lucker (1988-90)
Carlton C. Rochell (1989-91)
Marianne Scott (1989-91)
Barbara von Wahlde (1989-91)
Dorothy Gregor (1987-90), Chair (1989-90)

Staff: Jutta Reed-Scott

Committee on Preservation of Research Library Materials

James F. Govan (1987-89)
Paula Kaufman (1989-91)
Donald Koepp (1988-90)
John P. McGowan (1987-89)
Jan Merrill-Oldham (Consultant)
George Shipman (1989-91)
Donald Simpson (1989-91)
Peter Sparks, Library of Congress Liaison
David C. Weber, (1989-91)
William Studer, Vice Chair (1989-91)
Carole Moore (1987-90), Chair (1989-90

Staff: Jutta Reed-Scott

Task Force on Financial Strategies (1989)

Charles Miller
Carlton Rochell
Elaine Sloan
Duane Webster (ex-officio)
David Bishop, Chair

Task Force on Membership of Nonuniversity Libraries (1988-89)

Arthur Curley
Louis E. Martin
Philip E. Leinbach
Elaine F. Sloan, Chair

Staff: Nicola Daval

ADVISORY COMMITTEES

Supporting Collection Preservation Planning in Research Libraries

Jay K. Lucker
Carolyn Morrow, Library of Congress
Margaret Otto
John B. Smith
David C.Weber

REPRESENTATIVES

Coalition on Government Information	Jaia Barrett
Commission On Preservation and Access Advisory Committee	William Studer
CONSER Advisory Group	Susan Brynteson
CLR Management Intern Program	Duane E. Webster
EDUCOM	Duane E. Webster
Eighteenth-Century Short Title Catalogue	Ray Frantz
IFLA Voting Representative	Duane E. Webster
LC Cataloging-in-Publication Advisory Group	George Gibbs, UCLA
LC Network Advisory Committee	Duane E. Webster
National Humanities Alliance	Duane E. Webster
National Information Standards Organization (NISO)	Joanne Harrar
National Institute of Conservators	David Stam
NISO Standards Voting Representative	Duane E. Webster
RLG Conspectus Development Task Force	David Farrell, Indiana
Society of American Archivists	Herbert Finch, Cornell
Universal Serials & Book Exchange	Joanne Harrar

APPENDIX I

MEMBERSHIP OF THE ASSOCIATION

OCTOBER 1989

University of **Alabama** Libraries
P.O. Box S
Tuscaloosa, Alabama 35487-9784
Charles B. Osburn, Director
(205) 348-7561

University of **Alberta** Library
Edmonton, Alberta, Canada T6G 2J8
John Teskey, Acting Librarian
(403) 432-3790

University of **Arizona** Library
Tucson, Arizona 85721
W. David Laird, Librarian
(602) 621-2101

Arizona State University Library
Tempe, Arizona 85281
Donald Riggs, Librarian
(602) 965-3417

Boston Public Library
Copley Square
Boston, Massachusetts 02117
Arthur Curley, Librarian
(617) 536-5400

Boston University Library
Boston, Massachusetts 02215
John Laucus, Director
(617) 353-3710

Brigham Young University Library
324 Lee Library
Provo, Utah 84602
Sterling J. Albrecht, Univ. Libn.
(801) 378-2905

University of **British Columbia** Library
Vancouver, B.C., Canada V6T 1W5
Douglas McInnes, Librarian
(604) 228-2298

Brown University Library
Providence, Rhode Island 02912
Merrily Taylor, Librarian
(401) 863-2162

University of **California** Library, **Berkeley**
Berkeley, California 94720
Joseph Rosenthal, Univ. Librarian
(415) 642-3773

University of **California** Library, **Davis**
Davis, California 95616
Marilyn Sharrow, Univ. Librarian
(916) 752-2110

University of **California, Irvine**
The University Library
P.O. Box 19557
Irvine, California 92713
Calvin J. Boyer, University Librarian
(714) 856-5212

University of **California** Library, **Los Angeles**
Los Angeles, California 90024
Gloria Werner, Director & Acting
University Librarian
(213) 825-1201

University of **California** Library, **Riverside**
P.O. Box 5900
Riverside, California 92517
James Thompson, University Librarian
(714) 787-3221

University of **California, San Diego**
The University Library
La Jolla, California 92037
Dorothy Gregor, Univ. Librarian
(619) 534-3061

University of **California, Santa Barbara**
The University Library
Santa Barbara, California 93106
Joseph A. Boissé, Librarian
(805) 961-3256

Canada Institute for Scientific & Technical Information
National Research Council of Canada
Ottawa, Canada K1A OS2
Elmer V. Smith, Director
(613) 993-2341

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